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THE OXFORD MBA: A CASE STUDY IN CONNECTING ACADEMIA WITH BUSINESS

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ABSTRACT

This paper describes a unique partnership between a business school and a business accelerator to create an MBA in Entrepreneurship that will provide students with the practical as well as the theoretical knowledge and skills they need to succeed as entrepreneurs. In addition to academic coursework in traditional business disciplines and entrepreneurship, students in the program must network with entrepreneurs and have the option of participating in a paid apprenticeship with a CEO in a business similar to their area of interest. It is the hands-on experience with an entrepreneur as well as the valuable networking opportunities that make this program truly unique.

Keywords: *Entrepreneurship, apprenticeship, partnership, MBA*

INTRODUCTION

How do business schools ensure that they remain relevant over time and that their efforts are preparing students for tomorrow's business world? Certainly, the popular press is filled with articles suggesting that business schools are not doing a good job of maintaining relevance or preparing students. (Boyde, 2013) (Bones, 2007) (Muff, 2012)

In the area of entrepreneurship, the question is even more intriguing since entrepreneurs tend to be a breed apart from more corporate focused individuals – the traditional target market of MBA programs. (Daley, 2012).

Writing in Fortune George Deeb (Deeb, 2013) contends that the MBA needs to be replaced with a more hands-on approach to education:

"... in the last decade or two, we have seen a seismic shift in demand for an alternative business education, especially with the rising costs of education. One that teaches the basics in starting your own business and being your own boss. One that is tapped into local startup ecosystems with access to venture capitalists and startup incubators. One that marries expertise in technology development, with startup business and marketing skills. A new breed of business education under the banner: a Master's in Entrepreneurship."

While Deeb is advocating for a whole new degree, our university is implementing the other aspects of his idea within the context of an MBA. In an effort to improve the outcome and increase the odds of success for budding entrepreneurs, the School of Business (SOB) engaged in a partnership with a business accelerator to jointly develop the curriculum of the program and to provide students with access to entrepreneurs and real life case studies to enhance their learning.

THE OPPORTUNITY

A common challenge for entrepreneurship programs is how to provide students with a meaningful entrepreneurial experience. An additional challenge for students is how to develop

the entrepreneurial network needed to start a new business. The coursework alone for an MBA is usually not sufficient to increase the odds of success in launching a new venture. To address these challenges, some schools create a course that is short lived, usually one semester, to start a student-run business. Starting a student-run businesses, while providing some level of practical experience, is fraught with problems however, such as low levels of available capital, risk, and the shortness of time to see the project to fruition.

It has been noted that business schools need new pedagogical models that combine practicality and academic rigor with an entrepreneurial-centered approach. In some programs mentors provide some of these much-needed functions. St. Jean (2011) broke these functions out as psychological, career related, and role model functions. Psychological functions include reflector, reassurance, motivation, and confidence. Career related functions include integration, information support, confrontation, and guide. The role model function includes modeling. In his study, the role model function within entrepreneurship as compared to other career mentors was significant. The results confirmed the importance of the role model or mentoring function as being significantly more important in an entrepreneurship-learning environment than other career functions. Further, entrepreneur's value mentors for the help and support they offer (Deakins et al. 1998)

Emphasizing the need for mentors, a Terjensen and Sullivan (2011) study illustrated the value that nascent entrepreneurs place on having mentors to assist with a new venture. The authors found many nascent entrepreneurs "had difficulty finding and establishing mentoring relationships." This finding resulted in a suggestion by the authors that the nascent entrepreneurs attend networking events and join business associations to increase their chances of finding more experienced entrepreneurs to serve in the mentoring role.

In another study, Raffo, et al. (2000) concluded that a more "naturalistic" way of learning helped small and micro businesses within a cultural industry. Specifically they suggested, among other factors, the use of networking and authentic mentors to increase the probability of success. The study concluded that entrepreneurship in the cultural industries did not just involve the acquisition of technical, creative and business skills, but also the process of developing appropriate social and cultural capital that comes from being part of a network.

Using action based learning Åsvoll and Jacobson (2012) found that students perceived that mentors or entrepreneurs in residence, involved in the process of evaluating and selecting ideas, could improve entrepreneurial education. Also, institutions could help students' lack of a network by establishing a set of general resources, (lawyers, accountants, and industry specialists) that would be available to the students. Highlighting this need was Smith and Beasley (2011), who found the lack of sector-specific mentors as a barrier for graduate entrepreneurs. They cite a solution of co-mentoring with business partnerships and an overarching package of support.

All of these resources take connections, time and money to create. Is it realistic to think that these resources can be provided by a business school and at what cost? The use of mentors, with business experience in a specific industry, as well as networking experiences is what the university and the Oxford Center jointly provide. By sharing the endeavor with a business accelerator, the identification of the mentors and the participants in the networking become the responsibility of the Oxford Center which has the expertise and the connections to provide these resources at lower cost than the university could do on its own.

THE PROGRAM

In 2014, Brenau University launched the Oxford MBA in Entrepreneurship. The Oxford Center for Entrepreneurs is a locally based business accelerator. Their website states:

The Oxford Center for Entrepreneurs is the largest education, commerce, and media platform for high-growth entrepreneurs who want to grow fast to the next level and exit successfully. <http://oxford-center.com/>

The founder of the Oxford Center, is a successful entrepreneur who feels strongly that there is no need for entrepreneurs to keep making the same mistakes that their predecessors made as they launch and grow their businesses. The Oxford Center's primary mission is to provide a safe networking platform for entrepreneurs to share challenges and lessons learned as they grow their businesses. The Center's agenda is highly oriented towards education – education of entrepreneurs and now education of students interested in entrepreneurship.

The curriculum for the Oxford MBA was jointly created by the Oxford Center and the School of Business faculty. The founder provided critical, practical input on what skills are most crucial for a successful entrepreneur. His input on what skills are less relevant in the marketplace was also illuminating. We believe ongoing interaction of this type with business people in setting our curriculums is crucial to increasing the relevance of business education and insures that the curriculum reflects the changing business environment.

The core curriculum of the Oxford MBA in Entrepreneurship is the same core as all the MBA programs at the University and contains the usual courses in Accounting, Economics, Marketing, Finance, Management, Strategy and Operations. The Entrepreneurship major courses include five courses focusing on the skillset needed for success in entrepreneurship. Two of the five courses are marketing focused at Oxford's suggestion: Innovation and New Product Development and Channel Development, one is focused solely on raising entrepreneurial capital, and the other two are more holistic looks at the entrepreneurial process. It should be noted that four of the five courses in Entrepreneurship are shared with other majors. This course sharing drastically reduces the cost and risk of a new program.

The real added value of the Oxford MBA does not come in the classroom, however. Every new student in Entrepreneurship is contacted by an Oxford Center staff member, generally before they have made contact with an academic advisor. As part of their Oxford program, they are required to participate in ten Oxford events over the course of their MBA program (typically two years). Given the number of required events, it is imperative that students join the Oxford Center and get started on this part of their program from day one.

Oxford events include roundtables, speaker series, commerce lunches and dinners and webinars. The real benefit to the students of the membership in the Oxford Center is the ability to network with entrepreneurs. At a typical roundtable, there may be 100 entrepreneurs present. Time is allowed for networking before and after the official program which typically involves a very fast based series of "hot seats" for entrepreneurs to present their successes or what they are struggling with and need input on. For the entrepreneurs it is an opportunity to draw on the wisdom of other entrepreneurs who have faced similar issues and for the students it is an opportunity to see what the issues are and engage with entrepreneurs pursuing business ideas similar to their own.

HOW IT WORKS

Students in the Oxford MBA pay an additional fee on top of their tuition to cover membership in the Oxford Center. The fee is paid by the University to Oxford but collected as tuition which means it is covered by the financial aid that is critical to the success of the program. There are currently two levels of membership in the program:

The Global Entrepreneur MBA is designed for students who already have a business and need the business skills education to help the business grow and succeed. This level of membership includes membership in the Oxford Center for the life of the student's academic program, which includes access to all events.

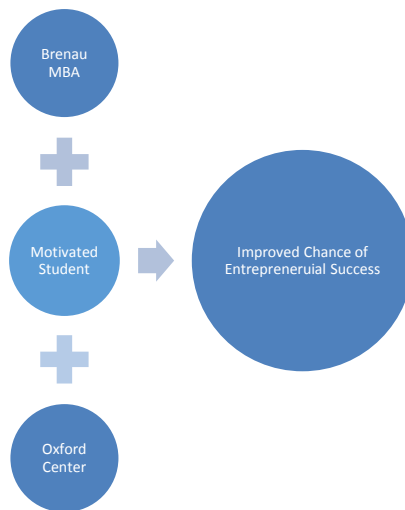
The MBA with CEO Apprenticeship is designed for students with an idea for a business but not yet engaged in the business. This level of membership includes membership in the Oxford Center as well as a paid apprenticeship with a CEO in a business similar to the business idea the student has. It is the student's responsibility to network among the members to discover the right mentor, but the Oxford staff is also involved in recommending and connecting students with entrepreneurs.

Both levels of membership include the opportunity for students to have their business ideas and plans vetted by the Oxford Center staff.

While we are still early in this new program's life (currently in the second year), experience has taught us a few things we did not anticipate when we launched the program. In our enthusiasm, we assumed that students would flock to the Oxford events, taking advantage of the opportunity and network their way to success. Indeed, the very first student in the program did just that. What we soon discovered is that that first student was ideally suited for this program and completely unafraid of putting herself out there to meet anyone and everyone she could.

We began to notice that other students were not attending events, so we became very intentional about the process. In the beginning, there was no requirement for number of events attended since we assumed students would go to everything they could. When we discovered this wasn't happening we arranged a dinner of all the Oxford MBA students to explain to them that a great opportunity was being provided, but like all education, it was the student's responsibility to take advantage of that opportunity by going to events, introducing themselves as students and beginning the learning process. We were able to use the experience of the first student to illustrate how the process should work. By aggressively networking, that student had gotten an apprenticeship with an organization she had never previously considered but one that was a perfect fit for her business idea.

The Oxford Center ultimately hired that first student to be their Director of Development. One of her primary responsibilities is managing the students. She sends them special notifications of events, she greets and shepherds them at Roundtables to increase their comfort factor, and she is charged with recruiting new students to the program. With the benefit of hindsight, this is a crucial piece to the success of the program that we failed to anticipate. Networking skills are important to all business people, but they are especially important for entrepreneurs. Engaging in these networking sessions, students will either improve their skills to take advantage of the accumulated wisdom around them, or they will discover that perhaps entrepreneurship is not their optimal career path. Either outcome is OK – but it is better to discover a misfit early rather than late.

Figure 1

BENEFITS

The benefits of this program to all involved are many. First, to the University, the program allows us to create a distinctive offering unlike any other that we know of. As a mid-sized, tuition-driven, private institution Brenau is constantly seeking innovative ways to grow revenue through programming. Offering generic MBAs does not give us a competitive advantage in a very crowded MBA marketplace. Offering distinctive, value-added programs that are not replicated is a growth strategy.

A second, very important benefit of the Oxford relationship (or any relationship with an outside partner) is the potential for free marketing. Most university marketing budgets are not as large as faculty would want, and specialized, targeted marketing efforts are especially hard to justify in the competition for marketing dollars across the university. The “Oxford MBA” is a prominent link on the Oxford Center website. While this website is viewed by precisely the target market for the program, it is highly unlikely that the entrepreneurs would seek out Brenau on their own. Brenau is cobranded on all materials used by the Oxford Center. At every roundtable the name of the university is featured on every slide, the School of Business Dean attends the events and is always noted. In 2014, the Brenau and Oxford were co-sponsors of a conference in New York City. This is not the type of event Brenau would have ever organized on its own but it provided invaluable publicity since all of our programs are available on line – again reaching a target market we would be unlikely to reach with our marketing budget.

A third benefit to Brenau is the Oxford Center’s involvement in evaluating the curriculum. Career academics can fall into a trap of teaching something because it has always been taught or because it is elegantly stimulating (mathematical models of business behavior). It is extremely valuable to talk in depth with business people about what we are teaching and its relevance and usefulness to practicing entrepreneurs.

To the Oxford Center, affiliation with a university fits into their overall mission of education, but also provides them with the added credibility that comes from being associated with an academic institution. At a very basic level, the Oxford Center is targeting students before

they launch their businesses in the hopes of preventing them from making mistakes that others have made before them.

Finally, to the students the Oxford Center provides something akin to a very strong alumni network of contacts. In fact, the Oxford network is potentially more valuable than an alumni network since the members are all entrepreneurs and thus have pertinent, valuable insight to provide. Students have the opportunity to pitch their ideas to informed advisors and to learn from CEOs in their apprenticeships. While similar to an internship, the apprenticeship model specifically matches people based on mutual interest and puts the student in a position much higher in the organization than an internship typically would. The apprenticeships are paid from the fees that the students pay to join the program, thus no cost to the company is involved. The potential value of this networking opportunity cannot be overstated, but it takes constant effort to remind the entrepreneurs of the existence of the students and to encourage the students to work on their networking skills.

CHALLENGES

The first challenge for this program is marketing. While the Oxford Center provides free marketing, they are not expert in targeting and recruiting students. The University is reluctant to spend scarce marketing dollars on such a specific program so getting the word out is a challenge that leads directly to an enrollment challenge. The program is still very new, but targeted marketing will be one of the major issues to be solved to grow the program sufficiently.

The second challenge is the culture clash that inevitably happens when business and academia interact. The process of change in academics must appear glacial to a business person used to pivoting on a dime in response to new market forces. The academic tradition of being governed by the annual course catalog means that any changes in programming are usually more than a year away from being implemented once it is determined that they are warranted.

A second cultural challenge is the tendency to wheel and deal in selling that is part and parcel of business but is not typically associated with academic admissions. It is sometimes difficult for our partner to understand that the academic program is the same for everyone and follows a predictable time table and set of admission standards, that may not seem fast or flexible enough to entrepreneurs.

CAN IT BE REPLICATED?

While the story of the Oxford MBA is an interesting story, it is only valuable if it can be replicated. The partnership can be replicated but not without a significant amount of dedicated effort.

In our case, the Oxford Center itself is critical to the success of the program. However, a similar situation could be created through an Entrepreneurship Advisory Board that was willing to invest time and energy in events for the students to attend and network at. Obviously, the primary focus of the networking events should be on the entrepreneurs themselves, and there must be an element of programming that attracts them to the events. The events could be coordinated by an Entrepreneurship Program Coordinator, who would be tasked with inviting entrepreneurs, managing the Board, coordinating networking events and apprenticeships. This could all be done by a university employee, using the Board to create networking opportunities. In fact, a dedicated university employee coordinating the process might in fact make it work more smoothly if the entrepreneurship program was the staff person's primary responsibility.

A second possibility would be to link up with a business accelerator like the Oxford Center. This is feasible in large cities where these groups tend to exist but the accelerator would have to see the value in education to be willing to include students in their events. Like the Oxford Center, these groups typically provide programming for their members so the marginal cost of inviting students is negligible. Apprenticeship opportunities may take some convincing but MBA students could add real value to a smaller business or start up.

In the case of the Oxford Center, putting on educational and networking events is part of their business model, so the marginal cost of including students is very small for them. A key to the success of their events is the feeling by the attendees that they learn something valuable every time they come. This means that the attention to programming and the highlighting of new entrepreneurs each time is critical to the success of the model.

Another option for replication would be an alliance with the local Small Business Administration office or Chamber of Commerce. These groups routinely provide programming for entrepreneurs and could provide a similar set of networking opportunities. Apprenticeships could be arranged through the university's Career Center if the staff has a way to identify entrepreneurial ventures to provide the opportunities. A connection between the Career Center and the SBA or Chamber office could provide those connections. What is clear is that the university must have an external partner of some sort to achieve the full benefits of an Oxford type MBA program. Connection to entrepreneurs is the key ingredient and it is unlikely that a university could locate a critical mass of entrepreneurs on its own.

CONCLUSION

Many of the opportunities discussed above are met through the use of the Oxford Center. Mentors are provided and fulfill the roles pointed out by St. Jean (2011) who broke these functions out as psychological, career related, and role model functions. The role model function, which includes modeling, is an essential part of the Oxford Center. Students are paired with a mentor from their specific industry area. This is supported by and fulfills the research mentioned by Smith and Beasley (2011), who found a lack of sector specific mentors as a barrier in graduate entrepreneurship education. The importance of modeling and the value of mentors is also emphasized by Deakins et al. (1998) and Terjensen and Sullivan (2011). Terjensen and Sullivan (2011) found that the need for nascent entrepreneurs to have mentors was important and that the entrepreneurs had a hard time finding mentors. The partnership described in this study would alleviate the search process. Further, Terjensen and Sullivan (2011) and Raffo, et al. (2000) both stress the need for networking. This networking is also provided by the Oxford Center through the member network the Oxford Center has established. Students have access to successful entrepreneurs on a regular basis at the monthly meetings.

Further research along longitudinal lines would be beneficial to determine the effect of this partnership. Will graduates of this program start new businesses at a higher rate than graduates of more traditional entrepreneurship programs, or of no entrepreneurship training at all? Will their businesses persist longer than the average start up? Another area of additional research is the use of an inbound measurement instrument for the entrepreneurial attitude of the students along with an outbound measure. The application to the academic field is that this program can be replicated and provide mentoring and networking opportunities that medium to small universities typically cannot establish. Further, in a practical aspect the application of real-world skills has been highlighted at the beginning of this paper (Boyde, 2013) (Bones, 2007) (Muff, 2012). The program provides a practical process for the development of entrepreneurs in

an environment that is conducive to learning and risk-taking. Further academic research could include a look at gender specific and sector specific success rates for the mentoring and networking components of the program. This would provide some context as to the effectiveness of the program. The overall conclusion is that while further academic and applied research data would be beneficial this is a program that needs to be replicated to further the next generation of entrepreneurs.

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COMPARING MILITARY VETERANS AND CIVILIANS RESPONSES TO AN ENTREPRENEURSHIP EDUCATION PROGRAM

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ABSTRACT

With veteran unemployment rates in the U.S. higher than civilian rates there has been growing support for assisting military veterans starting businesses. This study compares the impact of a community entrepreneurship training program for civilians and military veterans. Cohort groups (2012-2014) were scored with pre/post surveys in the areas of entrepreneurial self-efficacy and passion as well as networking frequency. Military participants' passion scores were significantly higher than civilians as were their percentage of actual business launches during and within one year of the program. Findings contribute to the strategy of how entrepreneurship programs can change attitudes and behaviors that influence startup as well as revealed information regarding veterans pursuing entrepreneurship.

INTRODUCTION

Entrepreneurship is touted as the American Dream, as well as a strategy for economic growth and job creation. Defined as the creation of new ventures by individuals or small groups, entrepreneurship typically begins with enterprises that are characterized as small businesses with less than 500 employees (SBA Office of Advocacy). In 2011, 28.2 million small businesses employed 50% of the working population (US Small Business Administration, Office of Advocacy, 2012). Small businesses have generated over 65% of the net new jobs since 1995 with total revenues generating over \$989 billion annually (Nazar, 2013). While these businesses may each be small in size, combined together they provide fuel for the U.S. economic engine. Kauffman Foundation (2013), a leading entrepreneurship research organization, identified that there are approximately 543,000 new U.S. companies launched each month.

Due to the significant drawdown of military personnel (Alexander & Shalal, 2014) and veteran unemployment rates higher than civilian unemployment rates (Garamone, 2014), there has been growing support for assisting military veterans interested in starting business ventures. Interest in military veteran business startups is based on a strong track record of former military personnel pursuing entrepreneurial endeavors. According to a 2007 U.S. Census Bureau report, military veterans are majority owners in over 2.4 million businesses (9% of all businesses in the U.S.) employing over 5.8 million people and generating over \$1.22 trillion in revenue. Recent research identified that approximately 45% of military veterans are likely to become self-employed (Hope, Oh, & Mackin, 2011).

The premise that entrepreneurship is a learned skill (Henry, Hill, & Leitch, 2005; Mitra & Matlay, 2004; Zimmerer & Scarborough, 1998) suggests that education can fuel the passion for creating and implementing new business ideas (Kuratko & Hodgetts, 2004), as well as impact individuals' confidence in achieving their goals. Beyond impacting core attitudes,

entrepreneurship training and education should also help individuals expand their networks and resources. Our aim for this research is to discover how a community-based entrepreneurship educational training program influences nascent entrepreneurs (civilian and military) and discover what impacts it may have on strengthening entrepreneurial passion (EP), positively impacting entrepreneurial self-efficacy (ESE) as well as increasing levels of networking frequencies comparing military veterans and civilian participants. This study contributes to the literature in these three specifically measured constructs as well as compares military veteran nascent entrepreneurs to civilian nascent entrepreneur participants thus providing information for economic development strategy, policy and entrepreneurship education and training.

Using data harvested from a community startup entrepreneurship educational training program composed of nascent entrepreneur civilians and military veterans, our study addresses three primary research questions:

1. Will a community based entrepreneurship training program improve participants' ESE scores, and is there a difference between military veteran participants and civilian participants' scores?
2. Will a community based entrepreneurship training program improve participants' EP scores, and is there a difference between military veteran participants and civilian participants' scores?
3. Will a community based entrepreneurship training program impact participants' networking frequency, and is there a difference between military veteran participants and civilian participants in this realm?

In subsequent sections we begin with a literature review on entrepreneurship education and training programs, ESE, EP, and participants' network frequency. This is followed by a description of the research methodology, including an overview of a Midwestern city community entrepreneurship training program called "LaunchIt". We conclude with an analysis of the results followed by discussion and implications.

THEORY AND HYPOTHESIS

Entrepreneurship Training and Education

Community programs, economic development initiatives, universities, community colleges and private industry are offering a variety of entrepreneurship educational training courses to address employment issues and build local economies. Entrepreneurship training and education is delivered in many shapes and sizes as well as delivered by many entities both private and public. It is well documented that University entrepreneurship courses have continued to grow (Carey, Flanagan, & Palmer, 2010; Dess, Lumpkin, & Eisner, 2008). Many approaches are utilized in these various programs: face-to-face, classroom, online, business simulations, etc. Within specific industries, the approach for training startups varies (e.g. Mano, Iddrisu, Yoshino, & Sonobe, 2012; Sonobe & Otsuka, 2011). For example, some micro financing organizations offer classroom training (McKenzie & Woodruff, 2012) and others offer it as part of their regular group meetings (e.g. Karlan & Valdivia, 2011; Berge, 2011) some mandatory some optional (e.g. Bruhn & Zia, 2012). The need and demand for entrepreneurship education and training continues to grow although evaluation outcomes regarding behaviors throughout these programs are frequently not tracked. These are the very items we investigate further.

Nascent entrepreneurs are challenged with developing both hard skills and soft skills to persevere. The hard skills encompass gaining knowledge with respect to marketing, finance, legal, operations and other functional disciplines while soft skills are more attitudinal such as meeting and interacting with various people. Research has shown, however, there is a need for

entrepreneur education and training to impact the attitude of individuals pursuing their dreams of starting their own businesses. Harris, Gibson, and Taylor's (2008) study of 358 students revealed that completing a Small Business Institute (SBI) course positively impacted entrepreneurial attitudes with respect to innovation, achievement, personal control and self-esteem. Since 2007 Syracuse University's Entrepreneurship Bootcamp for Veterans with Disabilities has grown to include seven other affiliated programs for veterans with over 800 graduates. Because entrepreneurship is appealing to military veterans and they have a desire to achieve as well as lead (Hoppenfeld, et al., 2013), the Small Business Administration rolled out various entrepreneurship education programs specifically designed for military veterans such as their "Boots to Business program". There is empirical evidence identifying that entrepreneurship education and training interventions impact adult attitudes toward entrepreneurship (Hansemark, 2003; Hatten & Ruhland, 1995). Rahman and Day (2014) suggested that role models can be positive motivation for budding entrepreneurs. Empirical evidence on how entrepreneurial training impacts veterans' attitudes, however, is limited.

Another component tied into the notion that entrepreneurship education has impacts on outcomes is the theory of planned behavior (Ajzen, 1991). It provides a foundational element regarding the notion that attitudes are influenced by beliefs and outcomes are associated with behaviors. Participants' levels of accomplishing tasks, such as marketing, networking and customer discovery are influenced by the belief that these activities will impact behavioral outcomes in regards to starting their business. Research shows that entrepreneurial attitudes can be developed through entrepreneurship education programs (Mitra & Matlay, 2004; Robinson, Huefner, & Hunt, 1991). It has also been well researched that education and skills development help explain the various levels that people engage in entrepreneurial activities and are more successful than others (Carter, Gartner, Shaver, & Gatewood, 2003; Gatewood, Shaver, Powers, & Gartner, 2002). During entrepreneurship education, participants attend class and engage in various business activities that potentially lead to attitudes and situations changing through an interactive process with the environment (Gibson, Harris, Walker, & McDowell, 2014). Once a person's attitude has been measured, a prediction can be made about the person's future actions (Carlson, 1985). During participation in an entrepreneurship business startup training program, goals are set by individual participants, and along with their attitude and beliefs being impacted, we specifically study their ESE and EP scores as impacted via pre and post surveys. We also examine how entrepreneurial training influences networking frequency behavior.

Self-Efficacy

One way to define self-efficacy is that it is the belief that one can achieve a goal. Derived from Bandura's (1977) social learning theory, empirical studies have subsequently demonstrated that self-efficacy is linked to an individual's ability to succeed (Judge & Bono, 2001; Stajkovic & Luthans, 1998; Wood & Bandura, 1989). Empirical studies have also demonstrated self-efficacy impacts career choice (Zhao, Seibert, and Hills 2005) as well as an individuals' willingness to tolerate risk (Krueger and Dickson 1994), both of which are closely connected to the idea of an individual pursuing self employment. For example, nascent entrepreneurs need unique skills different from those of managers and they must also confront the prospect their venture will not succeed (Chen et al., 1998). This anxiety of failure presents a profound barrier that individuals higher in self-efficacy may be able to more readily navigate.

In the last two decades, researchers have become interested in self-efficacy as a concept that can help explain a nascent entrepreneur's drive to create a new venture (DeNoble, June, &

Ehrlich, 1999). Chen, Crick, and Greene (1998) defined ESE as the degree to which an individual believes that they have the ability to successfully perform various roles and tasks related to starting a business. Given that self-efficacy is a predictor of behavioral outcomes, scholars have sought to understand the impact of entrepreneurial training on individual's ESE (Cumberland et al., 2015).

Research on whether entrepreneurial education improves confidence in pursuing entrepreneurial endeavors, however, has been mixed. Cox, Mueller, and Moss' (2002) study, for example, found that university entrepreneurship courses had a negative impact on ESE scores among students. These scholars suggest education of entrepreneurship may shed a more realistic light on the demands involved in launching and sustaining a business thereby decreasing interest in these endeavors. Karlsson and Moberg's (2013) pre/post survey study, on the other hand, found that entrepreneurial education had a significant positive effect on university student's ESE scores. These studies may not be generalizable since they were university students. The lack of consistent results in these various studies suggests further research is needed and led us to research a community entrepreneurship training program whereby adult participants state that their intentions for enrollment are to start a business. In summary, we expect:

H1: A structured community entrepreneurship training program will positively impact both military veterans and civilian participants' ESE.

Entrepreneurial Passion

Passion has been described as a key driver of entrepreneurial action (Anderson, 2013; Cardon, Gregoire, Stevens, & Patel, 2013) and has been associated with the ability to raise capital (Cardon, Wincent, Singh, & Drnovsek, 2009). Both entrepreneurial action and capital have been determined as critical components for nascent entrepreneurs. EP appears to be an element in entrepreneurship that can foster creativity, as well as enhance recognition of new patterns for the discovery and exploitation of opportunities (Baron, 2008; Sundararajan & Peters, 2007). This multi-dimensional construct identifies three domain roles specifically aligned to the activities of inventing, founding and developing (Cardon et al., 2009). Passion for inventing involves scanning for new market opportunities (Cardon et al., 2009). Those within this domain role enjoy and seek satisfaction by coming up with new solutions and ideas for products and services. Passion for founding is the desire to create an organization (Aldrich & Zimmer, 1986); here the founder's role identity is central to the entrepreneur's self-concept (Hoang & Gimeno, 2010). Need to achieve is an element of creating an entrepreneurial endeavor (Katz & Gartner, 1988), thus supporting the passion for founding. The last domain, passion for developing, is identified by characteristics of growing and expanding a venture once founded (Cardon et al., 2009).

Despite the level of theorizing around EP over the last decade, only a limited number of empirical studies have been undertaken to understand variables that impact EP. A recent study by Murnieks, Mosakowski, and Cardon (2014) linked EP to an individual's behavior and found that passion was positively correlated with ESE. With respect to how passion can be triggered, Dalborg and Wincent (2014) found a skill based explanation for how passion develops. In their study of Swedish entrepreneurs, these researchers found that optimism does not drive passion; rather, self-efficacy plays a critical role in building passion. This finding suggests that an entrepreneurial training program, which provides time for entrepreneurs to be further pulled into their business by giving them time to focus, will build ESE and EP. This leads to our second hypothesis:

H2: A structured community entrepreneurship training program will positively impact both military veterans and civilian participants' EP.

Networking

Starting a company some say takes a village or let's call it a "network." A network for entrepreneurs is composed of a cast of characters such as friends, family, accountants, bankers, lawyers, government, economic development folks, and other contacts that have resources and information. Networks potentially provide linkage to resources (Cope, 2005; Greve & Salaff, 2003; Liao & Welsch, 2003; Shane & Cable, 2002). Previous research suggests that network ties are critical for a startup as well as growth of entrepreneurial firms (Aldrich & Zimmer, 1986; Alexiev et al., 2010; Birley, 1985; Cope, 2005; Elfring & Hulsink, 2007; Watson, 2007). Findings are mixed on the desirable amount of frequency with some evidence suggesting that when entrepreneurs engage frequently with their networks they increase levels of relational trust as well as positive expectations (Spence, Schmidpeter, & Habisch, 2003). Other studies regarding advice seeking, relay information overload and reported that high frequency of networking advice seeking has a negative influence on speed to market (Wadhwa & Kotha, 2006).

Granovetter's (1973) seminal work on the concept of strong ties and weak ties addressed frequency of networking. Weak ties characterized by less frequent exposure while strong ties consist of frequent interactions occurring at least twice a week (Granovetter, 1973; Greve & Salaff, 2003; McDonald & Westphal, 2003). It is important to note, however, that Granovetter's term "weak ties" does not suggest that these ties are less important, rather makes the case that networks require both strong and weak ties. Birley (1985) characterized entrepreneurial networks as formal or informal. The informal network is comprised of family, friends, previous colleagues and prior employers. This informal network is willing to offer advice based not on what they know about the proposed opportunity, but rather what they know about the individual. Conversely, formal networks are accountants, bankers, realtors, lawyers, governmental sources and so forth that may require costs for advice or be laden with bureaucracy to navigate through. A gap within the literature on networking appears to be whether entrepreneurial education or training can increase the frequency of nascent entrepreneurs' network interaction. To what extent is there a networking level difference in military veterans and civilians? Leading to our third hypothesis that:

H3: A structured community entrepreneurship training program will positively impact military veterans as compared to civilian participants' level of networking frequencies.

METHODS

Participants

We conducted this study with self-identified nascent entrepreneurs who enrolled in a community entrepreneurship training course called "Launch It". It was developed and sponsored by a Midwestern university. Data were collected via paper/pen surveys on the first and last day of class from a total of four separate training course cohorts held throughout spring 2012 and fall 2013. Each course met once a week for three hours over a 10 week time period. The course materials included: exploring entrepreneurship basics, networking, defining target markets, conducting market research, testing/prototyping business concepts, entering and capturing the

market, and financials and intellectual property. Each week various community subject matter experts (attorneys, accountants, etc.) would speak to the class and offer networking opportunities. All class participants were assigned to a small group of four in the class cohort and assigned a community business startup mentor with whom they would meet with weekly separately from the training sessions. The civilians and veterans were purposefully divided among these small groups to integrate the participants. These small groups were developed to foster diversity and promote a higher level of cognitive learning (De Vita, 2001). Each cohort had approximately 17–38 total enrolled participants. There was a cumulative total of 121 participants comprised of 34 females and 87 males. The number of volunteer participants fully completing both pre and post surveys was 58 (41 civilians and 17 veterans).

Design & Procedures

Our study adopted a pre/post survey design (Shadish, Cook, & Campbell, 2002) to measure the participant's change of attitudes with respect to: ESE, EP, as well as changes to the amount of consultations/frequency of discussion/advice regarding participant's startup business that occurred within their networks. The facilitator of the training course sessions identified each participant's survey responses as either a civilian or a military veteran with a unique numeric identification number. Participants were assured anonymity via this numeric system known only to the facilitator of the courses.

Measures

The pre and post survey instrument included: basic demographic information, an ESE question section, an EP question section and a frequency of networking section.

Entrepreneurial Self-Efficacy

We utilized a five item scale to measure ESE in specific entrepreneurial task domains derived from Zhao, Hills, and Seibert (2005). The five domains: 1) identify new business opportunities, 2) create ways to improve existing products for a new business, 3) create products or services that fulfill customers' unmet needs, 4) develop a new business, and 5) think creatively in business. A seven-point Likert scale was used in this section with higher scores indicating higher levels of ESE. The internal consistency reliability coefficient of the scores from the five items in the current study was .94 on the pretest, and .87 on the post survey, and these coefficients were deemed acceptable for research purposes (Henson, 2001).

Entrepreneurial Passion

We utilized a thirteen item validated scale developed by Cardon et al. (2013) that is used to measure positive feelings within the three domains of EP. Cardon and colleagues delineated EP as a construct encompassing three domains: inventing, founding, and developing, and these three domains represent relatively stable intense positive feelings toward entrepreneurial activities. As recommended by Cardon et al. (2013), we used the 13 items on a 7-point Likert scale (instead of 5-point) ranging from strongly disagree to strongly agree. The internal consistency reliability coefficients for the scores from the pretest in each domain are as follows: .93 for inventing passion, .92 for founding passion, and .91 for developing passion.

Networking Frequencies

Participants were asked to indicate how often they consulted with friends, family, other entrepreneurs, and business associates about their new business ideas. This approach was adopted and modified based on De Stobbeleir, Ashford, and Buyens (2011). Participants were asked to identify frequency of contact with each of these parties via a reverse ordered 4-point scale (1= all the time to 4= rarely).

Analyses

We conducted a series of exploratory factor analysis on the correlations from the measures of ESE and EP separately because the ESE measure was newly adapted from Zhao et al. (2005), and the EP measure was also a new measure. Both measures could benefit from an additional validation effort by examining factorial validity of the scores generated from those measures. In factor analyses, we used three criteria for deciding how many factors to retain: Kaiser's rule of eigenvalues greater than 1, the scree test, and parallel analysis. The relatively new criterion, parallel analysis, provides another statistical technique to add more confidence in determining the number of factors to retain. For a factor to be retained in parallel analysis, the magnitude of eigenvalue for the factor generated from actual data needs to be greater than the magnitude of eigenvalue generated from random data (DeVellis, 2011). Once the number of dimensions of each measure was determined for each instrument, we proceeded to obtain descriptive statistics, reliability analysis, and primary analysis results.

RESULTS

Table 1
FACTOR STRUCTURE COEFFICIENTS, COMMUNALITIES, AND MEANS, AND STANDARD DEVIATIONS FOR THE ENTREPRENEURIAL SELF-EFFICACY MEASURE

Item	h^2	Mean	SD	SMC
I can successfully develop a new business.	0.76	5.61	1.54	0.90
I can identify new business opportunities.	0.81	5.71	1.40	0.87
I can think creatively in business.	0.66	5.92	1.46	0.81
I can create products or services that fulfill customers' unmet needs.	0.65	5.97	1.23	0.81
I can create ways to improve existing products for a new business.	0.57	5.90	1.24	0.76

Factor Analyses on the Entrepreneurial Self-Efficacy Measure

First, a principal axis factor analysis was performed on the correlations among the five items from the ESE measure. The Bartlett's test was statistically significant ($p < .000$), indicating that the correlation matrix in the population was not an identity matrix. As expected, all three criteria (eigenvalue greater than 1, scree plot, and parallel analysis) suggested a one-factor structure of the scores. The single factor accounted for 75.04% of the total variance, and the communalities ranged from .57 to .81. All five items had sufficiently high factor structure coefficients of .80 or higher with a mean communality of approximately .69. The single-factor structure retained was viewed reliable since all the factor loadings were greater than .80 with

relatively large communalities. In general, factors are considered reliable when there are four or more factor loadings above .60 regardless of sample size (Stevens, 2009). Means and standard deviations for the five items along with factor structure coefficients are reported in Table 1. As can be seen in Table 1, participants as a group had higher than average ESE with means ranging from 5.61 to 5.97 with a maximum of 7.

Table 2
FACTOR STRUCTURE COEFFICIENTS, COMMUNALITIES, AND MEANS, AND STANDARD DEVIATIONS FOR THE EP MEASURE

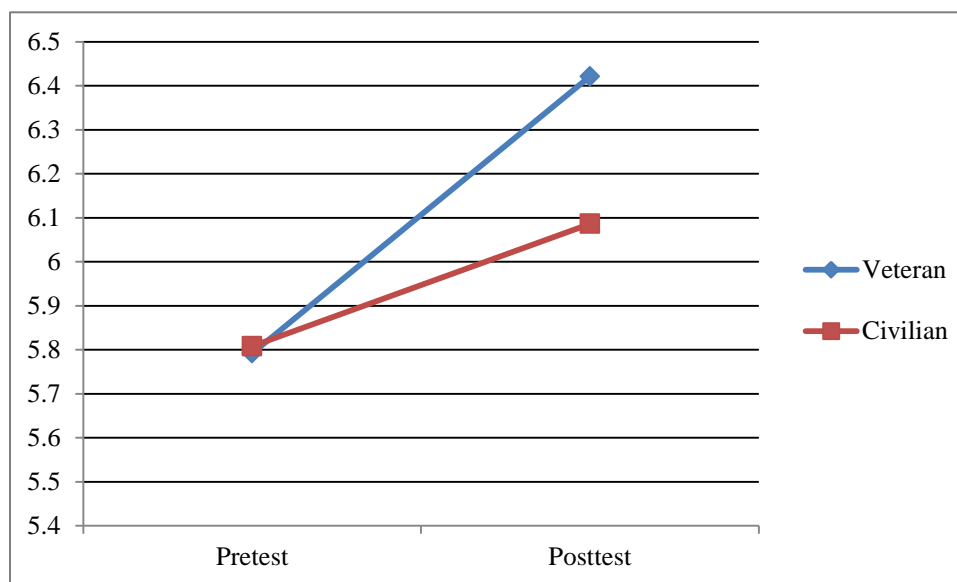
Item	h^2	Mean	SD	SMC
Establishing a new company excites me.	0.76	6.00	1.40	0.87
Searching for new ideas for products/services to offer is enjoyable to me.	0.73	5.92	1.44	0.86
Assembling the right people to work for my business is exciting.	0.70	5.68	1.32	0.84
I am motivated to figure out how to make existing products/services better.	0.74	6.22	1.20	0.83
Scanning the environment for opportunities really excites me.	0.69	5.81	1.49	0.83
Being the founder of a business is an important part of who I am.	0.68	5.37	1.68	0.83
Nurturing and growing companies is an important of who I am.	0.67	5.32	1.66	0.82
Owning my own company energizes me.	0.67	6.02	1.50	0.82
I really like finding the right people to market my products/service to.	0.66	5.70	1.40	0.81
Pushing my employees and myself to make our company better motivates me.	0.65	5.65	1.40	0.80
Nurturing a new business through its emerging success is enjoyable.	0.62	5.69	1.44	0.79
It is exciting to figure out new ways to solve unmet market needs that can be commercialized.	0.62	6.13	1.34	0.79
Inventing new solutions to problems is an important part of who I am.	0.57	5.94	1.31	0.75

Factor Analyses on the Entrepreneurial Passion Measure

Next, correlations among the 13 items from the EP Scale were subjected to a principal axis factor analysis. The Bartlett's test was statistically significant ($p < .000$), indicating that there was sufficient amount of correlation among the items in the population to justify factor analysis. The initial extraction indicated that only one factor had an eigenvalue over 1, which was reaffirmed in scree plot. A further parallel analysis also indicated only the first factor from the raw data had a larger eigenvalue (9.02) than the mean eigenvalue of the first factor from the randomly generated data, suggesting that only one factor be retained. The single factor accounted for 66.85% of the total variance, and the communalities ranged from .624 to .756. All 13 items had sufficiently high factor structure coefficients of .75 or higher, indicating that the single-factor structure was quite reliable. Since this unidimensional structure, however, was contrary to what the authors of the scale delineated, various analyses were again performed. For example, three factors, as the authors of the scale indicated, were intentionally extracted either with an orthogonal or an oblique rotation, from which uninterpretable factor structures resulted. Thus, EP measured by the EP measure using the current sample was considered a unidimensional

construct in this study. Cronbach's alpha coefficient for EP on the pretest was .963, and .946 on the post survey scores. These coefficients indicated that participants were highly consistent in their responses to the 13 items. Means and standard deviations for the 13 items along with factor structure coefficients are reported in Table 2.

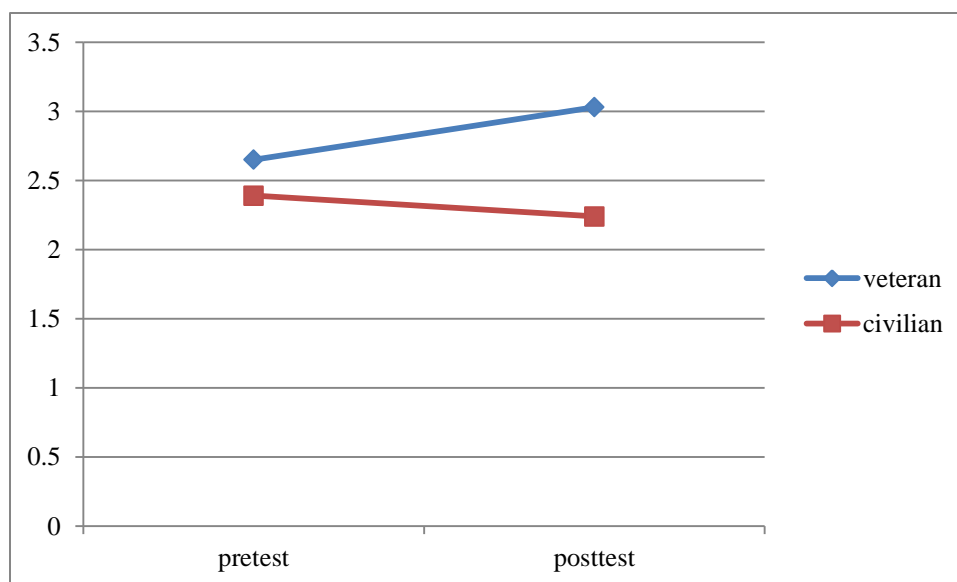
Figure 1
MEAN PRE AND POST SURVEY EP SCORES FOR THE VETERAN AND THE CIVILIAN GROUPS



Effect of Entrepreneurship Training on Entrepreneurial Passion by Group and Test

Another mixed 2 (civilian vs. vet) x 2 (pre vs. post) ANOVA was conducted to answer this question. Again, both Levene's test ($p = .74$ on pretest passion scores and $p = .09$ on post survey passion scores) and Mauchly's test ($W = 1$) results indicated that the major assumptions of homogenous variance and covariance matrices in the population were upheld. The results from the mixed ANOVA indicated that the interaction between the group membership and time of test was not significant. Also the group membership main effect was not statistically significant. The time of test main effect was significant ($F = 7.665$, $p = .008$), indicating that both the civilian and veteran groups had significantly higher means on EP scores. The partial eta square of .12 indicated that approximately 12% of the variance in entrepreneurial scores was explained by the time of test with post survey scores showing higher means for both groups. It is important to notice that the veteran group exhibited a higher level of increase in the EP scores ($\text{diff} = .63$, $t = 3.27$, $p = .005$) than did the civilian group ($\text{diff} = .28$, $t = 1.36$, $p = .181$). As shown in Figure 1, both groups were initially at about the same level in their EP, but the veteran group's level of passion sharply increased later in the program, which likely made a major contribution to the significant difference between the pre and post scores as a combined group.

Figure 2
MEAN PRE AND POST NETWORKING SURVEY LEVELS FOR THE VETERAN AND THE CIVILIAN GROUPS



Effect of Entrepreneurship Education on Level of Networking by Group and Test

Again a mixed 2 (civilian vs. vet) x 2 (pre vs. post survey) ANOVA was conducted to investigate this question. Both Levene's and Mauchly's tests suggested that the major assumptions of homogenous variance and covariance matrices in the population were upheld. For this question, two separate analyses were conducted: one for networking with family and friends, and the other for networking with other entrepreneurs and business associates. The results from the mixed ANOVA for networking with family and friends indicated that the interaction between the group membership and time of test was not significant. Also the time of test main effect was not statistically significant ($F = 6.854, p = .011$), indicating that the veteran group had a significantly higher level of networking with family and friends (mean of 2.84) than did the civilian group (mean of 2.31) as shown in Figure 2. Further post-hoc analyses indicated that the significant group difference was due to the difference between civilians and veterans in the post survey networking scores ($t = 3.26, p = .002$). The partial eta square of .11 indicated that approximately 11% of the variance in entrepreneurial scores was explained by the group membership. The second analysis for networking with other entrepreneurs and business associates indicated that none of the three effects (interaction and two main effects) was significant. Interestingly, 90% of the civilian program participants actually launched their within 6 months of the program compared to 97% of the military veterans.

DISCUSSION

This research identified attitudinal and behavioral changes and differences in military veterans and civilian participants based on pre and post surveys conducted during a community entrepreneurship training program. All participants began the program with higher than average ESE and both groups did increase their ESE, thus supporting Karlsson and Moberg (2013) study that found entrepreneurial education had a positive influence on ESE.

Results of the EP scores indicate no statistical significance between civilians and military veteran participants on the pre and post survey. In fact, the two groups began the program with nearly identical scores on EP. However, when examining pre versus post survey results, civilians and military veterans' EP scores increased significantly overall and veterans' EP scores rose even higher than civilians'. These results may be attributed to military veterans gaining more information that assists them with their business startup as well as gaining affirmation and motivation from the class via the networking, community integration and mentoring provided. Smaliukienė (2013) argues that while military service provides relevant competencies needed for entrepreneurship, veterans need special entrepreneurial training programs to advance knowledge that is required to successfully operate in a business environment.

In this study, overall, EP scores increased significantly for both civilians and veterans. Our findings do not align with Dalborg and Wincent's (2014) study, whereby passion was mediated by self-efficacy and improving self-efficacy resulted in higher passion. However, taking into consideration our very limited sample size, our research found that the EP construct loaded on one factor as opposed to three factors as suggested by Cardon et al. (2009).

Regarding networking frequencies, the military veterans had statistically significant higher levels of business networking frequency pre and post survey than the civilians. This may be attributed to the opportunities the entrepreneurship training program and the business mentors introduced the military veterans to, as well as the veterans becoming more comfortable with discussing their business startup with family, friends and others. A majority of the military veteran participants noted on their post surveys that the integration with civilians was a tremendous value of the program experience and enhanced their confidence talking about their business with others. Active encouragement from family and friends has been determined as an important factor behind entrepreneurial decisions (Davidsson & Honig, 2003; Parker, Barmby, & Belghitar, 2005). Throughout the program, participants were consistently being introduced to community entrepreneurship support professionals and business networking groups. Specific emphasis and efforts were made to integrate the military veterans into the community entrepreneurial eco-systems.

CONCLUSION, LIMITATIONS AND FUTURE RESEARCH

Overall, the findings from this study suggest that civilian and military veterans have high ESE prior to pursuing entrepreneurship training, indicating that this training does not significantly accelerate this construct. Entrepreneurship training, on the other hand, can positively impact the level of EP veterans experience once they complete the entrepreneurship training. Furthermore, entrepreneurship training positively impacts military veterans' level/frequency of networking activity, which is known as a critical component to successful ventures as well as the military veterans in this study reported launching their businesses at a higher rate than the civilian participants.

Limitations of this study are the small sample size and lack of a validated networking frequency/level scale. The small sample size reduces reliability and increases statistical Type 1 and Type 2 errors, as well as makes generalizability difficult. The lack of a strong validated scale to assess frequency of consultation and networking to categorize potential value as an outcome from each network encounter is a limitation; however, we add to this area by adopting and creating a measure and starting a process of evaluating military veteran entrepreneur participants. Indeed future research is needed to assess the passion scale to determine if the three factor structure is warranted, or whether the items may, as this study suggests, load on one factor.

The results would suggest that entrepreneurial educational training may function differently for participants based on prior work experience. Certainly, networking surfaced as a benefit for the veterans; although further investigation is warranted. Future research investigating how different populations respond to entrepreneurship education and training is needed to influence the curriculum design and implementation of entrepreneurship programs. Also, future research on military veteran startup initiatives as a strategy related to economic development would be valuable.

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ENTREPRENEURIAL CHARACTERISTICS AS A MEDIATION OF ENTREPRENEURIAL EDUCATION INFLUENCE ON ENTREPRENEURIAL INTENTION

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ABSTRACT

Current curriculum in universities encourages the provision of entrepreneurial education, and this has been implemented well in Indonesia. However, studies regarding the development of students' entrepreneurial characteristics after attending the education and their intention to build new businesses in real life need to be conducted. This study was aimed to analyze the role of entrepreneurial characteristics as a mediation of entrepreneurial education influence on entrepreneurial intention.

Population of the study was all students of the State Polytechnic of Malang and Brawijaya University of Malang who had been undergoing entrepreneurship education. Judgment sampling technique was used. Data collection method was questionnaires, and there were 206 data analyzed. Data were analyzed using descriptive statistics and path analysis.

Results of the study show that students who attended entrepreneurial education tended to possess entrepreneurial characteristics and to establish new business in the future.

INTRODUCTION

The tendency of college graduates to be job seekers rather than job creators and the limited number of job vacancies result in educated unemployment. Government continuously seeks ways to create a variety of programs to endorse the development of university graduates' entrepreneurial capacity. Entrepreneurial education is considered as one of the important factors used to foster and develop the passion, spirit and entrepreneurial behavior among the young generation (Kourilsky and Walstad, 1998).

In 2009 the Directorate General of Higher Education of Indonesia developed a program named 'Student Entrepreneurial Program'. The program was a part of education strategies in universities, intended to facilitate students who have an interest in entrepreneurship and start a business on the basis of science, technology and art (Directorate General of Higher Education, Ministry of National Education, 2010). In this sense, universities must internalize entrepreneurship to students by using effective educational strategies.

Brawijaya University and State Polytechnic of Malang, like other public universities in Malang, support and implement the Student Entrepreneurial Program. Students of both universities have received entrepreneurial education, in the form of entrepreneurship courses, entrepreneurship seminars, entrepreneurship training, exhibitions, and other entrepreneurship activities. In general, entrepreneurial education aims to develop students' awareness that the entrepreneurship profession is one of the career alternatives.

Bird's(1988) concept modified by Mazzarol, et al. (1999) explains that entrepreneurial intention is determined by environmental factors and personality factors. Environmental factors include: social, political, economic and infrastructure development, and entrepreneurial education is one form of infrastructure development.

Entrepreneurial education is defined as the activities of teaching and learning about entrepreneurship which includes the development of knowledge, skills, attitudes and personal qualities in accordance with the age and development of the students (European Commission, 2003 in Liñán, Moriano and Zarnowska, 2008). Several previous studies showed that students' entrepreneurial characteristics increased after participating in entrepreneurial education, such as entrepreneurship training and being engaged in business class (Rasheed, 2003; Bonnett and Furnham, 1991; Chen, Weng and Hsu (2010).

Entrepreneurial characteristics are a number of characters that mark a person to be referred as an entrepreneur (Gartner, 1989). There have been a lot of studies examining the entrepreneurial characteristics, yet there is no consensus among researchers about the entrepreneur characters (Rasheed, 2003). This study examines some of the characters that have been studied by several previous researchers, namely: internal locus of control (Rasheed, 2003; Othman and Ishak, 2009; Bonnett and Furnham, 1991; Luthje and Franke, 2003; Birdthistle, 2008), need for achievement (Rasheed, 2003; Othman and Ishak, 2009; Bonnett and Furnham, 1991; Yusof, Sandhu and Jain, 2007; Taormina and Lao, 2007; Indarti and Rostiani, 2008; Hatten and Ruhland, 1995), risk taking (Sexton and Bowman, 1985; Luthje and Franke, 2003; Yusof, et al., 2007; Josien, 2012), creativity (Birdthistle, 2008), social networking (Taormina and Lao, 2007; Chen, Weng and Hsu, 2010) and tolerance for ambiguity (Yusof, et al., 2007).

Someone who has entrepreneurial characteristics tends to favor entrepreneurial activities. Entrepreneurial intention is a cognitive representation of the actions to be implemented by individuals to either new independent ventures or to create new value within existing companies (Fini, Grimaldi, Marzocchi and Sobrera, 2009). This study defines the entrepreneurial intention as cognitive representation of the actions that will be implemented by a individuals to set up a new business. Indarti and Rostiani (2008) examined the entrepreneurial intention of students to carry out a comparative study between Indonesia, Japan and Norway. Results of this study indicated that (1) the level of entrepreneurial intention Indonesian students was significantly higher than students of Japan and Norway, (2) the level of need for achievement, self-efficacy and readiness instrument of Indonesian students was significantly higher than that of Japanese and Norway students and (3) personality, instrument and demography determined entrepreneurial intention. Then, Birdthistle (2008) stated that the majority of students who had a locus of control character admitted the importance of independence which include leisure time, creativity, solution orientation, and safety orientation for career desire as an entrepreneur.

With above mentioned background, this current study examined whether entrepreneurial characteristics as mediator the influence of entrepreneurial education on entrepreneurial intention.

LITERATURE REVIEW

Entrepreneurial Education

Entrepreneurship is a discipline that, like other disciplines, can be learned (Drucker, 1985). Along with the emergence of entrepreneurship as a discipline, entrepreneurship education has received attention from a number of researchers and achieved significant growth world wide.

A number of entrepreneurial education programs have been implemented, ranging from elementary school, middle to high school.

Different ideas have been proposed by researchers regarding entrepreneurial talent: Morris's conceptual framework assumes that entrepreneurial talent is given. On the other hand, Drucker (1985) argue that entrepreneurship can be taught through entrepreneurship education. Kruegar and Brazeal (1994) suggested that entrepreneurial education based on solid learning theory can produce entrepreneurs by increasing business knowledge and developing entrepreneurial characteristics. Then, Gorman, Hanlon and King (1997) stated that entrepreneurial traits can be positively influenced by educational programs. Thus, it is assumed that characteristics and entrepreneurial skills can be developed through entrepreneurship education (Rasheed, 2003).

The European Commission defines entrepreneurial education as activities of teaching and learning about entrepreneurship that involve development of knowledge, skills, attitude and personal qualities appropriate to the age and development of the pupils or students (Liñán, et al.(2008). This research examined entrepreneurial education given in college, both in the form of entrepreneurship courses and programs related to entrepreneurship. Then, entrepreneurial education was defined as the activities of teaching and learning about entrepreneurship which included the development of knowledge, skills, attitudes, and personal qualities.

Chou stated that the purpose of entrepreneurial education is to create entrepreneurs in the future and to develop students' entrepreneurial spirit, which would encourage them to develop a business, corporation, or other forms of trading (Chen, et al., 2010). Furthermore, Arasti, Falavarjani and Imanipour (2012) claim that entrepreneurial education aims to raise awareness of entrepreneurship as a career option and to increase understanding of the process of the establishment and management of new business ventures.

Several researchers examining the relationship between entrepreneurial education and entrepreneurial characteristics stated that personal characteristics associated with entrepreneurs can be developed through entrepreneurial education. Rasheed (2003) suggested that students who take entrepreneurship training and engage in business activities have a higher value of entrepreneurial characteristics. Furthermore, Hatten and Ruhland (1995) found that students who participated in the Small Business Institute program had higher internal locus of control character than students who did not participate in the Small Business Institute. Chen, *et al.* (2010) found significant differences between the two groups, the entrepreneurial models rated higher overall on CEAS constructs than the institute students. Meanwhile, Galloway, Brown, Anderson and Wilson(2006) suggested that both students studying entrepreneurship and students taking entrepreneurial programs had a great possibility of becoming entrepreneurs. Then, Lorz (2011) stated that entrepreneurial education could be a source of inspiration triggering the increase of entrepreneurial intention.

Entrepreneurial Characteristics

Entrepreneurial characteristics are a number of inherent nature or characters of an entity known as entrepreneurs (Gartner, 1989; Basu and Altinay, 2002). Researchers have devoted much time and effort to get an idea of the personality of an entrepreneur, yet there has been no agreement on permanent characters of entrepreneurs. Rasheed (2003) proposed a number of psychological attributes have been suggested as predictors of entrepreneurial behavior in the entrepreneurship literature, with some degree of consensus.

Likewise, authors of entrepreneurship literatures claimed some entrepreneurial characters. Rye mentions several entrepreneurial characters such as: high achievers, risk takers, problem solvers, status seekers, high energy levels, self-confidence, avoiding emotional bond and requiring personal satisfaction (Sunarya, et al, 2011). Then, Zimmerer, et al. (2008) mention a number of entrepreneurial characters such as: Desire for responsibility, preference for moderate risk, Confidence in their ability to succeed, Desire for immediate feedback, High level of energy, Future orientation, value of achievement over money, the degree of commitment, Tolerance for ambiguity, Flexibility, Tenacity.

This current study examines entrepreneurial characteristics that include the characters: an internal locus of control, need for achievement, risk taking propensity, creativity, social networking, tolerance for ambiguity. A description of the entrepreneurial characteristics used in this study is as follows:

Internal Locus of Control

A person tends to be an internal locus of control if he believes that his actions affect one's success and tend to be external locus of control if he believes that fate, luck or other external influences determine success and failure. Rotter (1966) in Lefton (1985) and Rasheed (2003) stated that a person who tends to be an internal locus of control believes the extent to which personal actions affect the outcome of an event. Then, Kobia and Sikalieh (2010) argued that an individual with a belief in an internal locus of control perceives that the outcome of an event is contingent on his own behavior or his own relatively permanent characteristics. Internal locus of control is a character that is often mentioned as one of the entrepreneurial characteristics.

The Need for Achievement

The power of someone's attention to gain achievement is called the value of need for achievement. The need for achievement is a character that is based on the expectations to do something better or faster than others or better than their own achievements or previous others' achievements (McClelland, 1961). He further said that the need for achievement develops through childhood influences, especially education that stresses self - reliance (self-confidence). Greenberg and Baron (2008) defined the need for achievement as the strength of one's desire to be the best or to succeed at various tasks and perform these tasks better than others.

Risk Taking Propensity

In general, entrepreneurship researchers stated that entrepreneurship is associated with certain risk taking because entrepreneurial activities are associated with decision-making under uncertain conditions. Sexton and Bowman (1985) stated that the risk-taking propensity can be conceptualized as one's orientation toward taking chances in a decision-making situation. Risk-taking propensity is a trait that distinguishes the founder of the business and not the business founders (Begley, 1995). Kuip and Verheul (2003) stated risk taking refers to the acceptance of risk in undertaking a certain activity, ie, the probability that an activity is successful is less than 100 percent. Zimmerer, et al. (2008) suggest that entrepreneurs are not the people who take risks blindly, but people who take calculated risks.

Other researchers, Carland, Carland, Carland and Pearce (1995) stated that entrepreneur is driven by the goal of profit and growth, not showing any tendency of willing to bear higher

risk than managers do. However, the manager displays risk-taking propensity higher than a family-oriented business owner. Luthje and Franke (2003) stated that students who are willing to take risks and feel able to control the events in their lives have more respect for the establishment of their own businesses.

Thus, someone who is willing to risk tend not to be afraid to face or bear the risk, but not a too low or too high risk taker.

Creativity

Psychologist Keith Simonton said: "You can not be creative unless you come up with something that has not been done before." Creativity is the process of developing original, novel, and yet appropriate responses to a problem. An original response is one that is not usually given. A novel response is one that is new or that has no precedent (Lefton, 1985). Creativity is the ability to develop new ideas and find new ways to look at problems and opportunities (Zimmerer, et al., 2008). Creativity is more associated with the development of new methods rather than the use of standard procedures (Raposo, Paco and Ferreira, 2008).

Creativity is important for a person who chose the profession of entrepreneurship (Birdthistle, 2008). Then, Simon (2011) claims that there is a statistically significant positive relationship between creativity and entrepreneurial intention. Entrepreneur should be creative, without creativity one's will not be a true entrepreneur, but just as an ordinary merchant (Agus Bastian in Wibowo, 2011). Thus, creativity is an important character for someone who is choosing an entrepreneurial career. Someone who is creative has the ability to develop new ideas and new ways to look at problems and opportunities.

Social Networking

Social networking is about the ability to manage relationships and encourages success (Chen, et al., 2010). Social networking, which is tendency to connect and interact with other people, is a social behavior but is also, may be viewed as a psychological or personality variable because Maslow (1970) identified the desire for social interaction as an essential psychological need (Taormina and Lao, 2007).

Social networking is useful in entrepreneurial process, to obtain information and advice. Someone who appreciates social networking will facilitate his efforts in starting a business (Taormina and Lao, 2007). Students who are involved in entrepreneurial model have a high social networking value (Chen, et al., 2010). Social networking also plays an important role in developing entrepreneurial intention (Zafar Yasin and Ijaz, 2012). Accordingly, a person who owns social networking character tends to establish and maintain social relationships to ask for help or advice as well as to support his success.

Tolerance for Ambiguity

Ambiguity tolerance is a personality characteristic that influences the manner in which one organizes information about ambiguous situations (Sexton and Bowman, 1985; Zimmerer, et al., 2008). Tolerance for ambiguity is seen as a continuum. In extreme conditions, ambiguity is perceived as undesirable, stressful and threatening. Under conditions of uncertainty, decision-makers face unwanted ambiguous conditions, trying to solve problems using environmental

information that is not adequate. In other conditions, tolerance for ambiguity is seen as a desirable and challenging goal (Sexton and Bowman, 1985).

One of the characteristics of people who are tolerant to ambiguity is trying to find more information to eliminate or reduce uncertainty (Zarei, Zainalipour and Shahraki, 2013). Thus, a person who has the character of tolerance for ambiguity tends to seek as much information as possible first, and then manages the information as a basis for decision making. In this sense, decision making is based on the available and clear information. He tries to adjust to the ambiguous situation.

Entrepreneurial Intention

Intention are indications of how hard people are willing to try, of how much of an effort they are planning to exert, in order to perform the behavior (Ajzen, 1991). Intentions as a behavioral disposition until, at the appropriate time and opportunity, an attempt is made to translate the intention into action (Ajzen, 2005). Thus, intentions can be interpreted as an indication of how strong one's willingness to try to do something and how much the effort he attempts to perform a certain behavior, until a certain time and chance when the action is performed.

Entrepreneurial intention are aimed at either creating a new venture or creating new values in existing ventures (Bird, 1988). In line with that view, Fini, et al. (2009) suggested that entrepreneurial intention as a cognitive representation of the actions to be implemented by individuals to either establish a new independent ventures or to create new value within existing companies. This study defined entrepreneurial intention as a cognitive overview of the actions would be undertaken by a person to set up a new business.

Entrepreneurial ideas begin with the inspiration and intention needed to put these ideas into reality (Delmar and Shane, 2003). Some individuals can be in a rush establishing a company at the same time; yet researchers need understand how entrepreneurial intentions are formed (Drnovsek and Erikson, 2005). Someone who has the entrepreneurial intention is better prepared to carry out entrepreneurial activities; he also has the motivation to develop the business. Therefore, it is important to identify factors determining entrepreneurial intention.

A number of factors are considered as determinants of entrepreneurial intention. Bird (1988) suggested that personal and environmental factors determine entrepreneurial intention. Indarti and Rostiani (2008) stated several determinants of entrepreneurial intention, namely: (1) personality factors which include the need for achievement and self-efficacy, (2) environmental factors consisting of three contextual elements, namely access to capital, information and social networking, (3) demographic factors including gender, age, educational background, and work experience.

METHODOLOGY

The samples of this study were all students of the State Polytechnic of Malang and Brawijaya University of Malang who had been undergoing entrepreneurship education. Judgment sampling technique was used. Data collection method was questionnaires and responses were put in 5-level likert scale with 1 represents strongly disagree, 2 for disagree, 3 for moderately agree, 4 for agree, and 5 for strongly agree. The number of data analyzed was 206. Data were analyzed using descriptive statistics and path analysis. Data were processed using SPSS and GeSCA software.

RESULTS

Analysis to all indicators of research variables showed that all indicators contributed to each variable (Table 1, Table 2, and Table 3). Regarding the variable of entrepreneurial education, results of the analysis showed that respondents agreed that the entrepreneurial programs offered in universities improved students' knowledge of business opportunity. Business practices were also reported to be able to improve students' skills in managing businesses.

Table 1
LOADING SCORES AND AVERAGE OF VARIABLE INDICATORS

Indicators	Loading			Average
	ESTIMATE	SE	CR	
Entrepreneurial Education				
• Increase on the need for achievement	0.786	0.035	22.73*	3,767
• Improvement on internal locus of control	0.816	0.027	30.7*	3,791
• Improvement on knowledge of business plan	0.788	0.047	16.82*	3,976
• Improvement on knowledge of business opportunities	0.823	0.026	32.21*	4
• Improvement on skills in managing business	0,739	0,061	12,19*	4,077
Entrepreneurial Characteristics				
Dimensions of Internal Locus of Control				
• Hard work to achieve expectation	0.772	0.050	15.56*	4,524
• Hard work to achieve success in life	0.744	0.058	12.85*	4,335
• Belief that not hard work can cause failure in life	0.595	0.088	6.74*	3,748
• Hard work to gain achievement	0.615	0.062	9.96*	3,927
Dimensions of need for achievement				
• Motivation to gain high achievement at present	0.717	0.059	12.2*	4,529
• Motivation to gain achievement in the future	0.812	0.049	16.51*	4,626
• Motivation to accomplish tasks	0.736	0.042	17.51*	4,126
• Motivation to gain achievement higher than others	0.712	0.044	16.28*	4,010
Dimensions of Risk taking Propensity				
• Calculating the advantages and the disadvantages in the decision making	0.690	0.056	12.41*	4.058
• Willing to take the risks as the result of the decision he/she has made	0.834	0.035	23.81*	4.068
• Willing to take the risk as the result of what he/she did	0.866	0.020	42.57*	4.087
• Willing to take risks based on the degree of the achievement	0.629	0.068	9.29*	4.087

Table 1 (continued)
LOADING SCORES AND AVERAGE OF VARIABLE INDICATORS (CONTINUED)

Indicators	Loading			Average
	ESTIMATE	SE	CR	
Dimension of Creativity				
• Developing other ways	0.670	0.056	12.02*	3,995
• Developing different views	0.733	0.043	17.03*	4,005
• Developing new ideas	0.773	0.043	17.92*	3,840
• Developing alternatives to solve problems	0.764	0.037	20.58*	3,961
• Developing activities	0.613	0.062	9.93*	3,961
Dimension of social networking				
• The ability to establish social networking	0.782	0.041	18.96*	4,364
• The ability to make friends	0.637	0.059	10.84*	3,699
• The ability to ask for help and suggestions	0.674	0.055	12.19*	3,874
• Maintaining social networking	0.817	0.036	22.65*	4,252
Dimension of Tolerance for Ambiguity				
• Adjustment to unexpected events	0.603	0.069	8.73*	3,534
• Considering new information	0.798	0.029	27.99*	3,912
• Awareness of the possibility of activities conducted different from the plan	0.685	0.071	9.69*	3,869
• Collection and analysis of information	0.696	0.060	11.69*	4,078
Entrepreneurial Intension				
1. Intention to establish business after graduation	0.740	0.053	14.0*	3,966
2. Intention to open business in the future	0.872	0.022	40.38*	4,306
3. Intention to realize business ideas	0.875	0.026	34.21*	4,053
4. Intention to open business after collecting capital	0.151	0.154	0.98	4,063
5. Intention to open business based on social relationship	0.535	0.082	6.49*	4,403

The variable of entrepreneurial characteristics was the second order having six dimensions. The weight estimate and the average score of second order variables of entrepreneurial characteristics are presented in Table 2. As seen on the table, each score of CR for each dimension is above 2. This may show that internal locus of control, need for achievement, risk taking propensity, creativity, social networking, and tolerance for ambiguity significantly contributed to support entrepreneurial characteristics with the significant level of 0.05.

Table 2
LOADING 2ND- ORDER AND AVERAGE OF ENTREPRENERIAL CHARACTERISTICS

2 nd -order Variable	Weight			Average
	Estimate	SE	CR	
Entrepreneurial Characteristics				
• Internal Locus of Control	0,170	0,021	8,018	4,134
• Need for achievement	0,242	0,024	10,241	4,323
• Risk taking Propensity	0,210	0,022	9,403	4,075
• Creativity	0,269	0,035	7,608	3,961
• Social networking	0,237	0,023	10,309	4,047
• Tolerance for ambiguity	0,216	0,027	8,060	3,848

Creativity contributed the highest in supporting the variable of entrepreneurial characteristics at 0.269. This was followed by need for achievement, social networking, tolerance for ambiguity, risk taking propensity, and internal locus of control. However, the average score on creativity and tolerance to ambiguity were below 4, confirming the need to provide students with entrepreneurial learning model conditioning the importance of creativity characteristics and tolerance for ambiguity in order to improve Students' creativity and tolerance for ambiguity characteristics

As presented in Table 2 regarding the average scores for each indicator of entrepreneurial characteristics dimension, several points are discussed below:

- **Internal Locus of Control**
Majority of the respondents were with the characteristics of internal locus of control, showing their tendency to believe that hard work is needed to realize wishes and that continuous hard work is compulsory for success in life.
- **Need for Achievement**
Majority of the respondents had the characteristics of having need for achievement reflected in their tendency in expecting to have higher achievement than before or higher achievement than that achieved by others. They also motivated themselves to accomplish tasks better and faster than before.
- **Risk Taking Propensity**
Majority of the respondents had the characteristics of risk taking propensity reflected in their tendency to consider advantages and disadvantages prior to making decisions, tendency to be willing to take risks as consequences of decisions taken, and tendency to be convinced that the higher the achievement the higher the risks have to be taken.
- **Creativity**
Majority of respondents had the creativity characteristics reflected in their tendency to try to look at problems from different point of views.
- **Social Networking**
Majority of the respondents had social networking characteristics reflected in their tendency to assume that building social networks support success and that maintaining social networks is prominent to obtain information.

- Tolerance for Ambiguity

Majority of the respondents had the characteristics of tolerance of ambiguity reflected in their tendency to take all information before managing the information as the base of decision making.

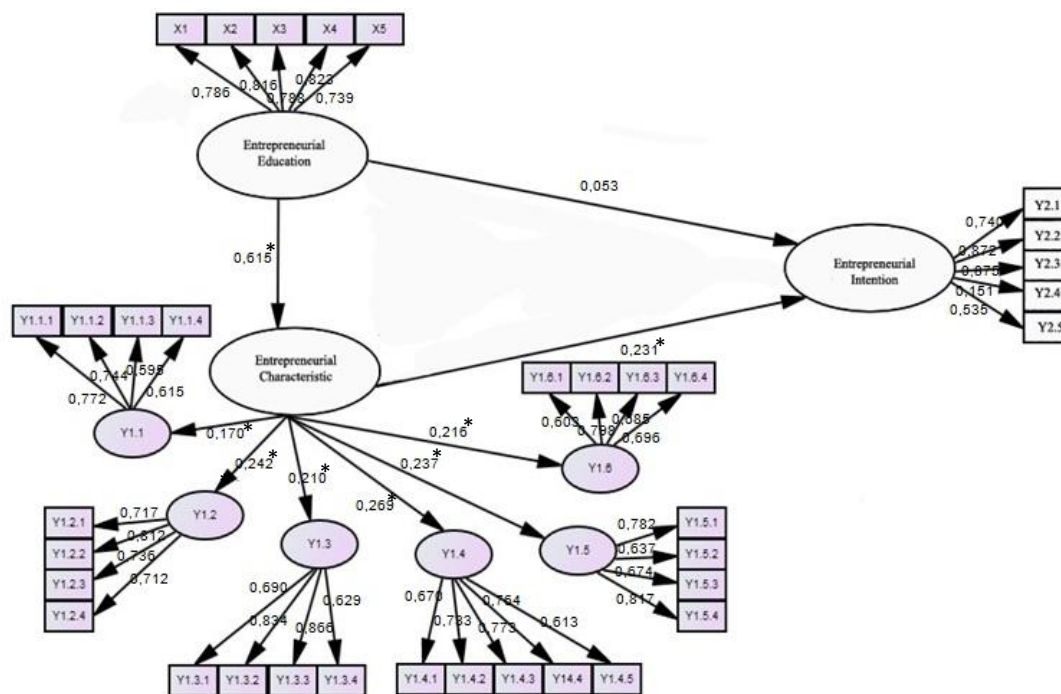
Test on indicators showed that majority of the respondents tended to realize their business idea into a new business in the future after owning adequate capital. Besides, they also tended to be convinced that building social networks would ease the establishment of a new business.

Path analysis on the entrepreneurial characteristics as the mediating influence of entrepreneurial education on entrepreneurial intention proved: that entrepreneurial education significantly effect on entrepreneurial characteristics with a coefficient of 0.615, and that entrepreneurial characteristics significantly effect on entrepreneurial intention with a coefficient of 0.231. However, path analysis showed that entrepreneurial education did not significantly affect on entrepreneurial intention with a coefficient of 0.053 (Table 3 and Figure 1). Thus, entrepreneurial characteristics can be expressed as a full mediation to the influence of entrepreneurial education on entrepreneurial intention.

Table 3
RESULTS OF PATH ANALYSIS

Independent Variables	Dependent Variables	Path Coefficient	Critical Ratio	Notes
Entrepreneurial Education	Entrepreneurial Characteristics	0.615	10.49*	Significant
Entrepreneurial Education	Entrepreneurial Intention	0.053	0.7	Not Significant
Entrepreneurial Characteristics	Entrepreneurial Intention	0.231	2.54*	Significant

Figure1
DIAGRAM OF THE PATH ANALYSIS



Note: * = significant level

DISCUSSION

As presented in the findings, entrepreneurial education significantly effected on entrepreneurial characteristics, entrepreneurial characteristics significantly effected on entrepreneurial intentions, and entrepreneurial education did not significantly effected on entrepreneurial intentions (Table 3 and Figure 1). Thus, entrepreneurial characteristics act as full mediation of the influence of entrepreneurial education on entrepreneurial intention.

The results suggest the influence of entrepreneurial education on entrepreneurial intention, and this is fully under the influence of entrepreneurial characteristics. This means that students' entrepreneurial intention improve when entrepreneurial education, in the form of entrepreneurship training and involvement in the business class, improves students' entrepreneurial characteristics such as internal locus of control, need for achievement, risk taking propensity, creativity, social networking and tolerance for ambiguity. Therefore, students who take entrepreneurship training and are actively involved in business training tend to believe that hard work enables them to achieve a desire and success in life; they also tend to accomplish work better and faster than before as well as expect that current and future achievements and accomplishments are better than previous achievements and accomplishments. These students also tend to take a decision after considering the advantages and disadvantages very well and are willing to bear the risk for decisions made and actions taken in accordance with the desired achievement, tend to be able to see problems from different points of view, tend to establish

social networking to support success and maintain social networking to gain information, and tend to manage information in decision making. Furthermore, students intend to realize their business idea into a new business in the future after raising capital and rely on social networking possessed.

Findings of the study suggest that entrepreneurial education has a significant effect on the entrepreneurial characteristics, supporting previous studies. Bonnett and Furnham (1991) argued that entrepreneurial education increased the characteristics of internal locus of control; Rasheed (2003) suggested that entrepreneurial education improved the need for achievement and Chen, *et al.* (2010) concluded that the students of the College of Humanities and Applied Life Science showed the highest average score for each construct of CEAS (Chinese Entrepreneur Aptitude Scale), because these students had more experience in developing a range of technical skills and training skills.

Findings of the study showed that the entrepreneurial characteristics significantly influence entrepreneurial intention. This result corresponds to Bird's concept (1988) modified by Mazzarol, *et al.* (1999) that entrepreneurial intention is determined by environmental factors and personality factors, with personal characteristics as the part of the personality factors. The findings are also in line with previous studies. McClelland (1961) suggested that the need for achievement would encourage people to look for entrepreneurial work, while Sexton and Bowman (1985) suggested that high tolerance for ambiguity is a unique component of the entrepreneurial personality. Yusof, *et al.* (2007) suggested that propensity to risk and innovativeness, need for achievement and tolerance for ambiguity affects the entrepreneurial tendencies. Taormina and Lao (2007) suggested that there is a correlation between social networking and motivation to start a business. Birdthistle (2008) stated that the character of internal locus of control is one of the essential nature of entrepreneurship and that being creative is important for someone to have a career as an entrepreneur. Phipps (2012) claimed that there is a positive and significant correlation between creativity and entrepreneurial intentions. Thus, students who have characteristics of an internal locus of control, need for achievement, risk taking propensity, creativity, social networking and tolerance for ambiguity, have the tendency to start a business in the future.

Based on the above discussion, students' entrepreneurial characteristics improved after they participated in entrepreneurship training and being actively involved in the business training. These students also had intentions to establish a new business in the future because they were equipped with business ideas and social networking.

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PRACTICING WHAT WE PREACH: ENTREPRENEURSHIP IN ENTREPRENEURSHIP EDUCATION

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ABSTRACT

A redesign of an introductory class in entrepreneurship is described. Turning the class into a living lab sidelines ongoing criticism whether entrepreneurship can be taught. Research on the obstacles impeding entrepreneurship pedagogy is reviewed as they relate to the redesigned class. Best practices are gathered from the literature and applied to the redesign to ensure the class maintains a suitable level of rigor. The overall aim of a redesigned class is to help improve the value and realism in the entrepreneurship classroom. Educators need to give up control and allow the class to be messy and chaotic. The challenge is to create a meaningful and useful experience for students in a discrete amount of time. Students will be led through a process that demands that they think about themselves, think about entrepreneurship, take entrepreneurial action, and obtain feedback while reflecting on what is happening in a safe supportive environment.

INTRODUCTION

The impact of entrepreneurship on economic growth and employment are widely acknowledged (Rauch & Hulsink, 2015; Audretsch, Grilo, & Thurik, 2011) and has led to an explosion in entrepreneurship education (EE) programs. In spite of this growth a consensus of exactly what should be taught to entrepreneurship students has not developed (Gedeon, 2014; Solomon, 2007). Most programs have grown piecemeal over time and were shoehorned into entrenched academic bureaucracies impeding the development of best practices in EE (Gedeon, 2014; Kuratko, 2005).

Vanevenhoven (2013) argued that incremental adjustments to existing pedagogies will not lead to the program innovations in EE necessary to prepare students to be entrepreneurs – fearless educators are necessary for a mutiny to occur (Meyer, 2011). The Global Entrepreneurship Monitor cites three barriers to entrepreneurship: social and cultural barriers, lack of capital, and lack of education (Rideout & Gray, 2013). If a community is going to leverage entrepreneurship - education provides a platform to create new social and cultural realities.

EE is confronted with significant entrenched obstacles that will be difficult to overcome. Primary education in the United States prefers conformity and standardization at the expense of creativity, independence, and a questioning approach (Wagner, 2008). Primary education socializes and conditions students to expect educational processes to conform to norms and galvanizes them against change. Higher education finalizes what was started at the primary level – students are taught how to work for somebody else (Rideout & Grey, 2013; Aronsson, 2004). While acknowledging the fearless efforts of many educators attempting to drive change, classroom management insidiously encourages conformity and standardization.

Overcoming entrenched obstacles is a formidable challenge. Entrepreneurship educators must practice what they preach in the effort to drive change and improve educational outcomes.

Rideout and Gray (2013) posit the critical question - “what type of EE, delivered by whom, within which type of university, is the most effective for this type of student, with this kind of goal, and under these sets of circumstances?” This paper describes a format for an introductory course at the undergraduate level, taught by an academic to students who self-selected into the course. The goal is to challenge students to explore their entrepreneurial intentions while simultaneously exploring their personal capacity to be an entrepreneur. Entrepreneurship is not for everyone.

DEFINING ENTREPRENEURIAL EDUCATION

A romantic view of entrepreneurs is not uncommon, but the reality is entrepreneurs are much more mundane. The question as to whether entrepreneurs are made or born persists (Duval-Couetil, 2013; Henry, Hill & Leitch, 2005), and the uncertainty if entrepreneurship can be learned as a set of principles and skills, or if it is a mindset that makes one risk tolerant and opportunistic. This divide is likely reinforced by who teaches the class and that may put the academic field, and the practical field of entrepreneurship at odds (Duval-Couetil, 2013; Neck & Greene, 2011, p.56). This dichotomy puts the focus on the teacher when instead it should be on the student.

There is no ‘one-way’ entrepreneurs become entrepreneurs. It is not unusual to find entrepreneurs who are driven to entrepreneurship by the internal impetus to chart their own destiny – perhaps they were born that way. It is also not unusual to find a happy corporate citizen who is haunted by the need to solve a problem that their organizations is ignoring, and the drive to solve the problem transforms the “company person” into an entrepreneur – perhaps they are made in spite of their erstwhile desires. The paths that lead to entrepreneurship are limitless. Consistent with Neck and Greene (2011) I argue that entrepreneurship should focus on value creation, and while this requires understanding and knowing, it also demands applying and acting (Duval-Couetil, 2013).

Value creation is normally described in the entrepreneurship literature as new venture initiation, but a more inclusive description includes many value creation initiatives that do not result in new venture creation. Community activism, intrapreneurship, educational reform, government reform, and similar efforts all demand entrepreneurial thinking and action. I adopt Gedeon’s (2014) definition of entrepreneurship education that places a premium on value-added student transformation:

Entrepreneurship education encompasses holistic personal growth and transformation that provides students with knowledge, skills and attitudinal learning outcomes. This empowers students with a philosophy of entrepreneurial thinking, passion, and action-orientation that they can apply in their lives, their jobs, their communities, and/or their own new ventures.

Most introductory courses in entrepreneurship do not allow programs to pick the students who will be in the class. This class should be broadly inclusive and encourage students to think in terms of value creation no matter how they ultimately spend their career.

ENTREPRENEURSHIP PEDAGOGY

The Johnson Center for Entrepreneurship and Innovation at Indiana University released a study in June 2006 (Finkle, Kuratko, & Goldsby, 2006) that described over 400,000 students annually taking 2,200 hundred courses at over 1600 schools compared with 24,000 students in 1996 (Rideout & Gray, 2013). That is staggering growth that has continued unabated. Instructional methods in EE are widely varied by types of instruction (lecture, cases analysis, business plans and experiential learning), and course content (general business management, small business management, technology venturing).

EE pedagogy is diverse, eclectic, and changing and moving toward an applied approach, but lecture and case studies are dominant (Rideout & Gray, 2013). The dominant instructional methods teach about entrepreneurship as a phenomenon using theory to develop critical thinking. The theory-practice tension in EE can be likened to medical school where it is important to not only learn the latest findings, but also practice the latest techniques (Bliemel, 2013). Entrepreneurial instructors have created myriad methods of instruction to liken the classroom to the real world. Beyond lectures, case studies and business plans instructional methods include (Carrier, 2005):

- 1) Simulations and games that are either computer-based or behavioral (Verzat, Byrne, & Fayolle, 2009).
- 2) Original educational proposals that have included: teaching entrepreneurship through the classics, through video, using life stories, or using role-playing for educating about emotions and learning from failure.
- 3) Integrating practitioners into the training process or having practitioner augment the faculty.
- 4) Training students to identify and/or create business opportunities.
- 5) Student run companies (Addams, Allred, Woodbury, & Jones, 2014).
- 6) Flipping the classroom (Bliemel, 2014).

The challenge for instructional designers in EE is to select a combination of methods suited to the instructor, accepted within the institution, appropriate for the subject matter, and targeted to the students. Success will largely depend on the design of the program to enable students to develop an attitude of inquiry and curiosity that will empower them to enact alternate futures, and conceive, document and implement actions that will lead to some alternative being realized (Starkey & Tempest, 2009).

THE STUDENT

Students of introductory courses are typically treated as a commodity. The breadth and width of material covered can be intimidating, and students are easily overwhelmed and overcome. The volume of students pursuing EE allows programs to relax and inoculates against stress that might be present if they were struggling with enrollment. It can be argued that competition among programs brings a market discipline to EE, but students are not always the best judges of one program over another. In a relaxed environment it is not surprising that lectures, case studies and business plans dominate in EE.

Moving away from traditional pedagogy (lectures, case studies, business plans), and using more innovative teaching methods expands the incidence of social loafing. Each student

commitment to collaborative efforts varies widely among students. Social loafing is about the reduction of physical, perceptual, or cognitive effort in the presence of others – students expect others to do the work while giving the loafer credit (Jassawalla, Sashittal, & Malshe, 2009). Students react by taking responsibility and doing the work, or redoing the work contributed by the slacker. The students are less concerned about doing the work than they are by the distractions caused by the loafer – the students can fix the work, but are powerless to control disruptions (Jassawalla, Sashittal, & Malshe, 2009).

An additional hurdle has been identified as blissful ignorance (Kennedy, Lawton, & Plumlee, 2002). The skills that develop competence in a particular domain are the same skills required to evaluate competence in that domain. When people are incompetent in judging their own behavior they are precluded by their lack of awareness from developing the knowledge they do not know they do not have (Kennedy, Lawton, & Plumlee, 2002; Kruger & Dunning, 1999). In a nutshell people are incompetent and unaware.

Loafing and incompetence impede the successful uptake of experiential learning. Course design should specifically contemplate these realities and provide space for students to manage distractions and overcome incompetence. The value of experiential learning is the process whereby knowledge is acquired through a complex set of interaction between thinking, feeling, and behaving while immersed in a complex environment (Robinson & Josien, 2014). Instructional designers must make sure that when they develop roles they ensure that they are measuring the right content, with the right methods, for the right reason (Church & Rotolo, 2013).

To cope with complex changing environments improving skills is an excellent way to make sure that skill development matches the rate of technological change. It can be difficult to evaluate and assess the outcomes of any exercise or course, and this is the seminal challenge of the day. It is essential that instructional designers keep in mind the difficult problem of making sure any experiential learning has the intended outcome. The complexity of this task can be evaluated by looking at practices where excellent metrics are available. Percival, Cozzarin, and Formanek (2013) evaluated training investment in 14 industries from 1999 – 2005. The good news is that in 12 out of 14 industries there was a positive effect on productivity, but the return on investment was only positive in four industries. Developing effective experiential learning methods is difficult and hard to judge.

THE CLASSROOM AS LAB

Professors realize the value of realism but are challenged to overcome the real pressing constraints of time and money. Developing a course is time consuming and demanding, and in many respects entrepreneurial. The professor has a wonderful opportunity, but risks negative evaluations, public defamation through rate-my-professor, and other harm that can impact the faculty member financially and professionally (Gedeon, 2014). Not every professor is tenured, and not every tenured professor is willing to take the types of risks in the classroom necessary to simulate the real world. Is the college classroom an alternate universe? The classroom has many, if not all, of the attributes of the real world. What exempts the classroom from the real world are the attitudes and expectations of the students and teachers.

Gedeon (2014) describes three major categories of course content that translate readily to learning outcomes: theory, competencies, and attitudes/values. Theory is realized as knowledge, skills can be directly assessed but a change of attitude is more difficult to assess. Knowledge and

skills are widely readily assessed through multiple assessment modes, but values are more complex and difficult to assess. Not all educators are comfortable with intentionally trying to change their student's values. Values are something that students can change; they are learned dispositions (Hofstede, 2001). "Entrepreneurship educators should inspire and motivate their students in order to spark transformative personal growth, desired learning outcomes and change in attitudes and values" (Gedeon, 2014).

To enter the real world the entrepreneurship educator has to be willing to do what will make them uncomfortable. Transformative processes must come from within the student; the professor can only provide a set of conditions that will encourage that transformation. It starts with giving up control in important ways and trusting a process that will guide students down a path. Not every student will be successful, most will be uncomfortable, but the trials and discomfort will return dividends for a lifetime. It should also be noted that the course design described would take time and patience. Making small shifts in the structure of assignments, feedback loops, and the providing choices make the classroom a reasonable and realistic simulation of what they can expect in the world.

The number of critics of management education (teaching and research) are distressed by how disconnected education is from practice is growing (Clegg & Starbuck, 2009). Blood (2006) challenges each instructor to implement changes in the design of their individual courses to demand active learning. If each instructor takes a small step the preparedness of entrepreneurship graduates will take a large step. Students have made business the most popular major (Glenn, 2011), but it is worth considering whether we are a destination major or a default choice.

Management and entrepreneurship scholars have demonstrated an increased interest in exploring applied capabilities of effective managers and entrepreneurs, and it is widely agreed that being effective requires more than conceptual knowledge (Baldwin et al 2011). If we want to increase the action potential of knowledge we need to change something in our teaching (Blood, 2006). Implementing a project such as recommended in this proposal is a solution to improve the ability of the entrepreneurship educator to change something in their teaching. Projects that demand involvement and rigorous engagement have been found to be an invaluable pedagogical tool that aids in achieving learning outcomes (Devasagayam, Johns-Masten, & McCollum, 2012). Experiential learning is often misunderstood as a set of tools and techniques missing the point that experiential learning is above all else a philosophy of learning (Dewey, 1938; Kolb & Kolb, 2005).

Kolb and Kolb (2005) establish these nine educational principles for the creation of learning spaces:

- 1) Respect for learners and their experience.
- 2) Begin learning with the learner's experience of the subject matter.
- 3) Creating and holding hospitable spaces for learning.
- 4) Make space for conversational learning.
- 5) Making space for development of expertise.
- 6) Making spaces for acting and reflecting.
- 7) Making spaces for feeling and thinking.
- 8) Making space for inside-out learning.
- 9) Making space for learners to take charge of their own learning.

Tacit knowledge is created in the intimacy of lived experience and combined with direct instruction may lead to a performance advantage (Baumard, 1999; Sternberg et al, 2000; Armstrong & Mahmud, 2008). The best workspaces are full immersion experiences and we should expect no less from learning spaces we create. Entrepreneurship educators must create programs that merge learning and practice.

THE CLASS REDISIGN

The classroom should more closely approximate the environment graduates will inhabit, or intend to inhabit upon graduation. The literature on the benefits and virtues of creating environments where a student's inner world and life story are central is essential for personal development (Petriglieri, Wood, & Petriglieri, 2011; Kaiser & Kaplan, 2006; Lyons, 2002; Tobert & Fisher, 1992). Extending the learning space to include a more robust realism makes sense. To make the classroom "real" more active participation from students is demanded, in conditions with more consequential outcomes, and face-to-face interaction between students and faculty.

What should be taught may not be as important as how it is taught. Moving away from what to how allows for transformational learning to blossom. Transformational learning involves reflection on one's life experiences, core beliefs, and how one makes sense of the world and self (Petriglieri, Wood, & Petriglieri, 2011). Courses and programs that remove students from the environment have prospects for the worst outcomes, because they are deprived of real experiences, and the ability to reflect on those experiences (Petriglieri, Wood, & Petriglieri, 2011; Mintzberg & Gosling, 2002).

The challenge is to create a meaningful and useful experience for students in a discrete amount of time. Students will be led through a process that demands that they think about themselves, think about entrepreneurship, take entrepreneurial action, and obtain feedback while reflecting on what is happening in a safe supportive environment. The goal is to provide a series of nested challenges. Each challenge will require reflection activities that apply Eyler and Giles (1999) criteria to create more realistic learning spaces:

1. Connect experience and knowledge;
2. Stimulate continuity of reflection before, during, and after the experience;
3. Make sure the context applies to real life situations;
4. Challenging students' perspectives; and
5. Mentor and coach the students.

It is important to turn the autopilot off, and put aside preconceived notions and experience-based expectations and try something new. We should all be mindful about what we are doing and why we are doing it. Bringle and Hatcher (1999) establish that effective reflection should:

- a) make sure course content is linked to expected learning outcomes;
- b) Offer clear descriptions, expectations, and the assessment criteria;
- c) Occur regularly so students can develop the capacity for more thoughtful and broader examination of issues;
- d) The instructor must provide feedback to help students learn how to improve their critical analysis and reflection skills; and

- e) Challenge students to explore, clarify, and alter their personal values.

The overall aim of a redesigned class is to help improve the value, realism and time reflecting on entrepreneurship as a discipline and as a practice. This is a tall order when many students are disengaged or apathetic, but if that is what they bring to the table that is what will be explored. Each student has to be accountable and transparent – there is no right or wrong simply the way we are where we are.

The redesign of the class is built on a stream of activities. Students review the course requirements during the first class and complete a written statement that they are willing and able to complete the course requirements. Time pressure is an important element of the class. The work students will be completing challenges their ability to complete the tasks, organize and transform their ideas into actionable deliverables, and present their work product and accept outcomes. The redesign is not appropriate for condensed course calendars. The activities are as follows:

- 1) The Worldview Exercise (20% of course grade) – exercise done at the opening of the class and repeated at the end of the semester. The exercise is a personal exploration that challenges students to explore who they are, and document why they are that way, and challenge assumptions that determine why they see things the way they do.
- 2) The Proposal and the Pitch (40% of course grade) – students are challenged to determine what type of assignment they would like to do on what. The students have to prepare a proposal detailing the merits of the assignment and why it is justified at this time in this class. The students will then pitch the proposal first to the class, and then to a panel of three professors. The proposal will be accepted or rejected. When a proposal is rejected students are required to complete an alternate assignment. The assignment proposal must include a final reflection that explores the entire process.
- 3) All the Rest (40% of the course grade) – To maintain the appropriate level of rigor, students are provided with more traditional assignments. Students are expected to complete readings and explore theory as it relates to the course content. Students will have to prepare and take a final examination on the readings and lectures. Students are incentivized to work collaboratively and the final exam is a collaborative exam.

THE WORLDVIEW EXERCISE

The worldview concept has received increased attention, and it is important to understand how we view the world, and why we view the world the way they do! Completing this assignment challenges students to explore who they are, and document why they are that way. The assignment is completed from two perspectives: the first is a detailed account of their worldview that is personal and confidential; the second is an account of their worldview they are comfortable sharing with the class. During class when the worldview is due students will break into small groups and present and discuss their worldviews to each other. This process builds relationships and class cohesion. The two-tiered approach is intended to have students consequentially evaluate what, and why they are willing to share some things, and not others. The relationship between the two is debriefed in the first reflection assignment. This assignment is completed in the very early part of the class. It is a baseline.

Understanding ourselves, what we value and why we value it is a great starting point to understanding how we view and treat others. Understanding your worldview helps a person

understand their biases of thought, preconceived notions, and how they structure categories of people and things. A worldview is a set of assumptions we hold about the world (Sire, 1988). It is how an individual interprets and explains the world, and how the individual draws conclusions, and takes action based on their constructed understanding (Phillips & Brown, 1984). Our worldview is the model that guides how we will act in the world.

Worldviews are so pervasive we often fail to recognize them and how they impact us. Your taste in movies, television, music, magazines, newspapers, government, education, science, art, and every other way you experience life is affected by your worldview. Importantly, when movies and television are made, along with all other consequential human activity their creation is impacted by the creators' worldview. Ignoring the importance of worldviews is detrimental and potentially dangerous.

There is no right or wrong answer, or way to complete the assignment, but it must given attention to be completed properly. To get students started they are provided some questions that may help them discover their worldview! These questions are merely prompts and should be evaluated as such. For instance, religion or spirituality is vitally important to many people and is essential to understanding how they see the world. It is important to include prompts to help people complete the exercise more thoughtfully.

Some prompts might include:

1. Do you believe in a higher power, force or are you spiritual? Do you live a life dedicated to that belief, or is it something that makes you feel good when things aren't going well?
2. What are the most important things in life for you? How do you know whether you are or aren't successful?
3. What do you want from a relationship? How fast do you think a relationship should move? What's the point of having one?
4. What are your politics? What do you think governments should -- and shouldn't -- oversee and enforce? What do you the individual's rights are as far as things like privacy and criminal prosecution go?
5. What makes someone a hero to you? What are a person's obligations to society? To family?
6. What things give your life meaning? What couldn't you live with? What couldn't you live without?
7. What do you think makes a family? How should a family interact? What are the responsibilities of parents?
8. What is the role of work in your life? How will you measure success?
9. Do you care about education? What is education and why is it important?
10. What kind of person do you want to be? What kind of person are you becoming? Do your actions reflect your desires?

This is not intended to be an exhaustive list it is only intended to stimulate thinking. There is no right or wrong way to do this assignment, but the assignment will yield marginal benefits if it does thoughtlessly. This assignment is intended to be a deep self-discovery and exploration. If the students are superficial they will get superficial results. Done right this is a difficult and time-consuming process.

Students will return at the end of the semester and redo their worldview. They are asked to do the assignment from scratch, and only after it is completed compare the two. As before, they will be asked to complete two versions – one to share and one for them. An integral part of completing each worldview is to complete a reflection on the process, difficulties and surprises associated with completing the assignment.

Students are asked to pay careful attention to the decisions about what they would and would not include in the worldview that was to be shared. They are also asked to discuss if they intentionally omitted anything from the version only to be shared with the professor. They are not asked to disclose what they omitted, only share that they omitted something. Students are provided some instruction on effective reflection to help ensure they can get the greatest benefit from the process.

THE PROPOSAL AND THE PITCH

In an entrepreneurship class it is appropriate that student should be required to act entrepreneurially. Allowing students to create and pitch a proposal for 40% of their course grade is real, timely and demands action. Students will do what they would do to develop and pitch an idea for a new business, but they will be pitching course work. They will be pitching to a panel of professors who are experts, and have the power to accept or reject their proposal. Students whose proposal is rejected are required to do an alternate assignment. The alternate assignment is deliberately unattractive to encourage students to do their best - it is also challenging to create real “stakes!!”

As with “real” entrepreneurship there are very few enumerated rules. Rules squash creativity and innovation and are not in keeping with the spirit of the project. The one element that must be contained in every proposal is a comprehensive reflection on the overall process. Students can work alone or in teams, but if working in teams each student prepares their own reflection. Students are also told that they can ask for their assignment to be for greater than 40% of the overall grade – this allows students to dial up the risk. The other artificial imposition is the time frames; students will have to adhere to a calendar created by the professor. The worldview and proposal and pitch are closely related and time has to be provided in the calendar to walk through all the steps of the process. The assignment allows students to develop their social capital and incentivizes students to grow and consequently harvest a greater educational outcome (Peterson, Luthans, Avolio, Walumbwa, & Zhang, 2011).

The students can select any topic and assignment type they prefer. There is no instruction in the types of assignments that might be suitable or the topics. College students are experts since they have been students for years. The problem is that students are not accustomed to taking risk in this domain, but entrepreneurship, real entrepreneurship, involves risk. This will make students uncomfortable and that is the point – to try and get comfortable with discomfort. Experiential training grows and strengthens the connection between the belief prospective entrepreneurs have in their own skill and competencies, and the focus and commitment they have for opportunities they identify (Schenkel, D’Souza, & Braun, 2014).

If students are not willing to put the effort into a realistic simulation of what they might expect if they become entrepreneurs, it is appropriate to question their level of commitment to becoming an entrepreneur. Many students may take entrepreneurship classes never intending to be entrepreneurs, but everyone can benefit by training to become an entrepreneur. There are few downsides to challenging students to be and do their best. How busy students choose to allocate

their effort to courses is a critical concern because educational outcomes are dependent on students to harvest that opportunity (Love, Love & Northcraft, 2010).

To provide a forum for feedback and discussion students pitch their proposals to the class prior to pitching to the panel of professors. This allows students to get feedback to strengthen their ideas and presentation. Class members are required to provide brief written feedback on every proposal pitched - a note to help or encourage the presenters. Feedback is to be short and to the point because the class is moving quickly. It is helpful to prime students on providing useful feedback.

Table 1

Week	Activity	Deliverable
1	Course requirements are introduced and reviewed. Worldview is assigned and discussed.	Commitment Statement
2	Students encouraged to book one-on-one with professor to explore any concerns	One-on-Ones
3	Students broken into small groups to discuss and will take turns introducing each other to class	1 st Private Worldview
4	Suggestions for giving good feedback are reviewed	1 st Worldview Reflection
5	Etiquette expected for professor pitch is reviewed	Proposal and Pitch to Class
6	Proposal for pitch will be circulated to professor panel week prior to pitch	Proposal for Pitch to Professor Panel
7		Pitch to Professor Panel
8		Blank
9		Blank
10		Blank
11	Etiquette for assignment results presentation are reviewed	Project Delivered
12		Project & Results Presented
13	Class discussion on proposal and pitch with critical takeaways highlighted	Overall Project Reflection
14	Students rejoin small groups to discuss how their worldview impacted over course of semester	2 nd Private Worldview (redo)
15		2 nd Worldview Reflection

CONCLUSION

Practicing what we preach provides a pathway to make the classroom experience a “real” experience for students (and professors). Entrepreneurial education is efficacious, but whether we can teach students to be entrepreneurs remains in question. The intent of having students create an assignment proposal and pitch provides safe practice with a topic they know very well. Every college student is an expert student - knowledgeable in the varieties of assignments and familiar with all the options.

The process is clumsy and messy, but that is also vitally real. It is difficult for students to free ride and apply the minimum effort. This approach to entrepreneurship education is unapologetic about the demand that it puts on students to perform at a high level – students need to apply their best effort. Professors also need to bring their best effort. We get what we give.

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BUILDING INTELLECTUAL PROPERTY AND EQUITY OWNERSHIP POLICY FOR ENTREPRENEURSHIP PROGRAMS: THREE DIFFERENT APPROACHES

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ABSTRACT

Intellectual property (IP) protection and co-ownership of student businesses is an issue every entrepreneurship program needs to address. However, there is little literature about how to do this. After reviewing the literature, we present three different approaches to such policies: a hands-off approach, an evolving approach, and a structured approach. For each, we describe the methods for student IP and co-ownership issues and the justification behind these approaches, offering insight for educators seeking to build their own programs. At the end we suggest factors to consider for developing a university policy or refining an existing one.

BACKGROUND

Many entrepreneurship classes and programs throughout the U.S. have students work in teams to develop ideas. Sometimes such exercises are just that—opportunities for students to practice skills taught in the class. Other times, they are serious efforts to help students launch businesses. Pedagogically, there are a variety of justifications for doing this, one of the key being that it offers hands-on and realistic experiences under the supervision of a faculty or staff mentor. Other schools have Tech Transfer Offices or otherwise offer students the opportunity to develop businesses based on other people's ideas under the supervision or with the involvement of the school. But as anyone who works with students can attest, not every student idea actually works out. For a variety of reasons, student teams may dissolve, fall apart, or just fade away.

The problem, though, is that as soon as two or more people work together on a business idea, they are legally partners in a business entity (Uniform Partnership Act §101). Many people are unaware of this law and how it connects to every student team. Even worse, many faculty and staff are unaware of the legal ramifications that may affect them as a result, potentially with significant legal or financial ramifications for all parties involved—which includes the instructor, other classmates, and even the school.

Three Scary Stories

At Quinnipiac University, two students formed a team to create interactive stories about current events for children. Over the course of the semester, they both worked incredibly hard and, with a shoestring budget, created a functional app—and a deep, abiding hatred of each other. When the semester ended, both students disagreed with who had the rights to the business. With no clear policy to guide them, they threatened to bring in lawyers. They both ended up pursuing other ideas before that final step.

At California State University, Chico, two students formed a team to create an early

version of a crowdsourcing platform for inventors. The pitch was compelling and believable and the students were encouraged by various mentors, family and friends. A significant amount of progress was made and meaningful milestones were accomplished. One student graduated and out of necessity had to move back home and find work. The other remained in school, where he was able to actively pursue the business idea. Shortly, the two began arguing over the lack of effort by the participant living remotely. The student who remained active argued that the other should give up all equity or reengage. That individual refused on the grounds that his early contributions were substantial. Several months later, after much arguing, talking with attorneys, and the realization that without costly legal action no further progress would be made - two very aggravated individuals both began to pursue other ideas and an opportunity was lost.

At Ohio Northern University, faculty and guests watched a senior capstone presentation given by a collaborative team of business and engineering students on the feasibility of an automated mower. A faculty member asked who owned the product. After some confusion the business students pointed at the engineering students who shrugged and said, "Yeah, we think it's ours." There was a minor uproar from the back of room as a third group; the original student team who had pitched the product in an elevator pitches competition, informed all present that it was their idea. All the students were upset as well as the faculty advisors over the confusion of ownership. With the intervention of a parent, who happened to be a patent attorney, and pizza, the issue was eventually resolved.

If these stories sound disconcerting, they should, and they happen every day on campuses worldwide. The purpose of this paper is to provide some basic guidance on how to solve these problems for colleges and universities the U.S. This is not meant to be legal advice. Each country has its own laws and regulations, so the solutions presented in this paper may not be applicable to faculty and staff in other countries.

The Inadvertent Partnership Problem

There has been a plethora of research into technology transfer policies on campuses primarily covering licensing agreements, joint research ventures, and the impact of policies on faculty and researchers (Siegal & Phon, 2005). This paradigm concentrates on the organizational level of entrepreneurial partnership activity on campuses between the universities, faculty, and businesses/government organizations (Siegal & Phon, 2005). Other researchers in this area concentrate on entrepreneurship pedagogy impact. For example, Silva, Henriques, and Carvalho (2008) examine entrepreneurial education for engineering students, citing the need for "intellectual property awareness" and how they teach this in an entrepreneurship course.

However, one of the biggest potential legal risks arising on campuses today comes out of student business plan teams, and in particular, the claim of co-ownership that might be raised by team members under traditional principles of partnership law. After extensive research, it was found that despite the potential problems that could arise, little literature has addressed this topic, and of the relevant topics, most were written by Professor Anthony Luppino, culminating in his most recent articles on the topic (Litton, Patterson & Little, 2014; Luppino, 2009, 2012). While Luppino has done an excellent job discussing the legal ramifications that arise from this challenge, the lack of literature indicates that the dangers of the inadvertent partnership—student teams that form legal business entities even without any formal acknowledgement or documentation—may not be adequately addressed by entrepreneurship programs and classes, leaving open the possibility of potential harm to students, professors, and schools alike.

When students work on a team, the potential for disputes regarding the intellectual

property rights that can be asserted by faculty, students, and the university can arise when innovation occurs at a university or with the use or assistance of university resources. Luppino (2009) identifies these issues as a potential impediment to university-based innovation and entrepreneurship. He also addresses the problem of what he calls the “accidental or ill-defined partnership.” For this paper, we will refer to these as “inadvertent partnerships” as we believe this phrase captures both accidental and ill-defined partnerships.

Luppino specifically addresses the problem of a co-ownership claim arising out of student teamwork at universities including student team projects in traditional classroom settings and student team projects in business planning or idea/innovation competitions. With regard to a team project in a traditional joint course-work assignment, he explains:

Thus, it is possible that, if the assignment generates valuable property, claims to ownership or at least shares of proceeds from exploitation of that property might logically be made by every student on the team, course instructors or teaching assistants and perhaps the university itself (Luppino, 2009; pg. 414).

These concerns are exacerbated by the fact that there is a precedent for successful businesses arising from student work as part of a class (such as in the case of Fred Smith and FedEx), extracurricular activities or work (such as with Bill Gates and Microsoft), or from social interactions or experiences directly connected to the school (such as with Mark Zuckerberg and Facebook). Such high success businesses have financial and reputational impacts on the school, the professors, and the students who may have participated in the formation of a business (Herrington, 2010). This means that participants in the process have an incentive to pursue—possibly through legal channels—any windfalls. (Herrington 2010, 22) notes:

When those products are patentable, universities’ and students’ contributions often become mixed, which leads to legal consequences for both students and their universities. Not only students but also professors and administrators who work with them would benefit from clear assessments of their legal relationships before entering them.

The courts have ruled that schools are not entitled to any portion of the works (the business itself or intellectual property developed for it) or any results (financial, reputational, etc.) of student businesses unless the students were employed by the university or college and such stipulations were included in the employment contract and/or the students were utilizing resources and equipment exclusive to the school, such as a strain of bacteria only the school has access to. Similarly, a professor has no claims to the ideas or intellectual property developed in a class unless the professor acted beyond his or her capacity as an instructor and truly contributed to the business, such as substantive financial investment or assuming a key role in the business, and/or the development of its intellectual property, such as contributing substantively and creatively to the creation of the intellectual property (Luppino, 2009). However, this leaves open the dilemma of students working in a team in the class.

According to the Uniform Partnership Act §101 (1994) a partnership is “an association of two or more persons to carry on as co-owners a business for profit.” While intent to form a co-ownership association for profit is necessary to create a partnership, the parties do not need to have expressly intended to form a “partnership.” Partnership statutes generally include a list of factors that will help to determine the existence of a partnership relationship, but there is no bright line test for making this determination. This means it is left to the courts to determine the issue on a case-by-case basis. For students on a team, this means that they may have co-ownership claims on any and all intellectual property developed as a result of a class unless they have an alternative option to pursue for the class. Universities that have established policies

and/or professors who implement policies in their classrooms can help to mitigate any potential problems, but there is no perfect solution.

While Luppino concludes that “it seems unlikely a court would find all of the necessary elements of partnership in a typical course project,” there is a stronger claim of co-ownership in a course structured as a business planning class (Luppino, 2009; pg. 415). While by itself this can create long-term problems, such classes often face short-term dilemmas as well as the classes may be connected to competitions, either as part of the class itself or encourages students and student teams to participate in external competitions. These competitions usually have financial and in-kind rewards in addition to the notoriety of placing in the competition. The addition of these external prizes that go beyond a grade mean that the students must wrestle with the ownership issues such as dividing “profit” (the winnings from the competition) and reputational considerations like titles in the business and dealing with publicity for their business (Luppino, 2009).

Litton, Patterson & Little (2014) note, “the average undergraduate business student has no appreciation for the realities of the business organizations they may have formed.” Professor Luppino’s advice to universities is clear: “First and foremost, a university should inform students of what is at stake when they create innovations in course projects, advise them that significant rights and obligations may be involved from the outset and explain to them that they would be well served to get the advice of their own legal counsel in sorting through these matters” (Luppino, 2009; pg. 417). Luppino further recommends that students be given disclosures about the legal ramifications of their actions and decisions. They should be given information on how to find and engage legal counsel, particularly lawyers with relevant specialties and who may offer their services for free or at discounted rates.

Additionally, Litton, Patterson & Little (2014) suggest that universities consider four factors when forming students teams; 1) voluntariness; 2) profitability; 3) intent; and 4) timing. Voluntariness refers to whether students formed teams or the instructor formed the teams. Partnership formation requires voluntary formation; however, even if students are placed together, if they choose to work on an idea and pursue it beyond a class assignment, such an action indicates an agreement to voluntarily enter into a partnership with their teammates. Profitability is determined by the purpose of the course and the team. If the course requirement is completion of an assignment and not pursuit of profit, then for all of the teams in the class, most likely a partnership is not formed. However, intent refers to what students hope to accomplish. Again, if the goal of the team is the pursuit of a grade, then generally a partnership is not formed, but if the team seeks to earn profit, whether for a grade or for business, partnership status applies. Timing refers to when the project changes into actual pursuit for profit and the intent of the team. While these factors need to be considered, every university has differing policies and local, state, and federal laws could potentially impact this issue. As a result, no one approach seems to fit every situation.

The Three Approaches

There is not necessarily one “right” way to create IP and ownership policies. Rather, there are multiple ways that are dependent upon many factors. These approaches can range from putting the responsibility for co-ownership on the students (a hands-off approach) to having a detailed and involved approach to cover all legal bases (a structured approach). However, these are two endpoints of a continuum, and many schools, based on their comfort with entrepreneurship, concern about legal ramifications, the comfort level of the professors, and the

culture of the school and students, among other considerations, may fall somewhere in-between.

Presented are three approaches that three universities, Quinnipiac University, California State University, Chico, and Ohio Northern University use: one from each end of the continuum and one from the middle. Each approach was developed to meet the needs of our students while matching the culture of the entrepreneurship programs we have built. These are examples of how schools can approach building their own policies, explaining the justification the decisions made by the three universities so that others may understand the thinking and use these as a basis for crafting their own policies. Provided below is a summary of the three approaches, followed by an in-depth look at each school to better explain the reasoning behind it, the environment in which it has been applied, and any drawbacks to the approach.

A Hands-Off Approach: Quinnipiac University

At Quinnipiac University, when approaching how we wanted to address the topic of inadvertent partnerships (students working on a team together to build a business), we considered the following:

1. We did not want our students to focus so much on this topic that it would become a barrier to them sharing ideas. At the same time, we wanted them to understand the full legal implications of their actions in and out of class.
2. We wanted students to use ideas that they were serious about starting, rather than using fictional ideas. Passion leads to greater learning outcomes, and we wanted to facilitate this.
3. We wanted to encourage collaboration not only between students on a team, but also across teams. Ideas formed in isolation are rarely as high quality as those developed with input from other people.
4. Any document or policy we developed needed to be fair to all people involved: the student(s) who had the idea, any that helped develop the idea, and the professor of the class or staff member mentoring the team.
5. Asking people to sign non-disclosure agreements is not an effective way to protect an idea. First and foremost, they are incredibly difficult to enforce. Students are bound to discuss interesting ideas outside the classroom, which may include the team's ideas and the ideas of other teams. In addition, we have designed our program to encourage people to actively test and validate their assumptions about their business models, including verifying with their target market that they are in fact interested. This leads to further dissemination of the idea and additional people who would need to sign the document. Moreover, at least one class has a competition open to the public at the end of the semester with the ideas presented to a panel of judges and the public, while others encourage students to be involved in entrepreneurship events and competitions outside the school.
6. We wanted to avoid a Facebook-like scandal of people arguing that their contributions to a successful business were not given credit as a situation like that would be detrimental to the Entrepreneurship program, the University as a whole, the professor or staff member in charge, and team members acting in good faith.
7. Entrepreneurship professors and most staff members mentoring teams are rarely experts in legal matters or intellectual property, and asking professors to guide students through the complexities of the law and intellectual property regulations is doing both the professors and the students a disservice.

Our solution to these problems was two-fold. First, we developed a disclosure statement. This statement alerts the students to the challenge of who owns an idea in a team, using an abstracted example of a team of four students who develop a business idea in the class. After the class ends, one of the students continues to pursue the idea, developing it into a successful business. The other team members find out and, after complimenting their peer, note how the business was all of their idea, followed by asking about when they might see the profit from "their" idea.

After presenting the students with this scenario, we then offer them alternatives to sharing their idea in class if they are concerned that such a scenario might happen to them. The first option is that the student may choose to be a “free agent,” a person who helps someone else develop his or her idea. The second option is that the student could develop a business they designed specifically for the course rather than sharing an idea they have been working on independently or as part of an independent team.

We conclude the disclosure statement with a notice to the student that the University supports and encourages students to work collaboratively. We point them to relevant University policies (of which Quinnipiac University has few). Finally, we note that this disclosure statement is not legal advice and that students are encouraged to seek their own legal counsel if they have questions or concerns.

During the first week of any class in which the students are creating a business, we introduce the students to the disclosure statement and have them read it as assigned reading. Students are encouraged to discuss the course policy and the disclosure statement with their teams and work out an arrangement that best suits them.

Students are also informed that no one will sign NDA or confidentiality agreements as part neither of the class nor in any outside events connected to the class such as business plan competitions or events, even ones run as part of the class.

Non-Exclusive Right to Pursue Ideas

In an entrepreneurship class, the students will inevitably hear the other teams’ ideas, some of which have the potential to be highly successful ideas. However, once the class is over, the instructor has little to no ability to follow up with every single student for the foreseeable future (much less the indefinite future) to ensure that only those people who worked on an idea from the class are pursuing it. In addition, someone pursuing an idea usually further refines and evolves it, combines it with other ideas, or modifies it in some other way. We, as academics, instructors, and mentors, do not want to assume a policing role, having to determine whether or not an idea is sufficiently changed to be considered a “separate” idea, determining where an idea came from since a person may be exposed to an idea from multiple sources, and having to continually follow up with people to check whether or not they are following the class policy. In addition, this more closely maps to the U.S. patent system that allows—and indeed encourages—people to build upon the ideas of others.

To date, no student over the past five years, to our knowledge, has intentionally or unintentionally used another person or group’s idea. What we have found, and many of our colleagues have also found, is that there are two major barriers to students starting businesses around ideas other people have created. The first is that students tend to view the amount of work and effort another team invested into a business as a huge obstacle to pursuing the idea themselves. The original team has already invested a semester of their time at a minimum, which includes meetings with experts, planning sessions, and countless discussions and debates over the span of months. To have to recreate even a portion of that is daunting.

The second barrier is that students are rarely as passionate about another team’s ideas as they are about ideas they create themselves. The end result is that, no matter how interesting the idea appears to be, students are rarely motivated to claim that idea for themselves. The prospect of working on someone else’s idea is a bit too similar to having to work for a company for those who are truly entrepreneurial, while at the same time needing to launch a business is too entrepreneurial for people who are more entrepreneurs. The end result is that students may talk

about what a great idea someone has, but rarely do they go any further than the conversation.

Equal Ownership of an Idea

By law, all people in a team who contribute to the development of a business idea and/or intellectual property (whether a patentable idea, copyrightable code, or some other protected material) are equal owners with non-exclusionary rights to pursue and use the idea. To reinforce this, we specifically choose to remain independent of any determination of who the originator of an idea was and what contribution each person made to it. Not only is such determination incredibly difficult, we also have no legal right to say that one person's contributions to the group were or were not significant and thereby affects ownership of the idea. For example, while one person may have an idea coming into the class, that idea gets shaped by the team over the course of the semester, sometimes radically. Determining who contributed which part of an idea is difficult enough; accounting for the fact that one or more ideas that were not included in the final design led to those ideas makes the situation even more complicated. As we want students to focus on contributing to the business's development rather than on documenting each individual's contributions, having a default policy of equal ownership makes the most sense.

Letting the students determine how they wish to divide ownership of a business or intellectual property at a pace of their choosing also reflects that the teams rarely know up front who will want to continue pursuing the idea after the end of the class, who will be in which leadership positions, who will contribute money, resources, knowledge, expertise, and time to the project, among many other considerations that could affect ownership. By freeing the students from determining this at the beginning when their idea is barely formed or requiring it at the end, we allow them to actively focus on the business and discuss the topic in a time and manner when it best suits their needs.

Ability to Adjust Ownership of an Idea

Not every team works on an idea created for the class; some work on an idea one or more people had and have worked on prior to the class. Not every team has everyone contribute equally, even if some or all of the people are going to continue working on the business after the class ends. For these instances among others, we allow teams to create their own ownership distributions without locking them into one fixed agreement. For example, we had one team with a person who had been working on his idea over the summer, doing an independent study even to help develop the idea. When he recruited his team, he added four individuals, but he was clear that he wanted to continue pursuing this idea as *his* idea, that the four other individuals would not have equity in the business. The four people were amenable to this, they put the agreement in writing, and the team had no issues relating to ownership. Another team revisited their ownership split halfway through the class when they realized that not all of the team was committed to pursuing the idea after the class finished. All of this was done independently of their instructors. Our students appreciate the flexibility and being treated as young professionals, and we as educators can direct them to experts when they have questions.

No Confidentiality Agreements/NDAs

Students are informed that they should be sharing their ideas with other people, but that they need to be smart about what they share. Such documents are near impossible to enforce,

which means that having people sign them without proper follow-up could leave the instructor or mentor in a tough situation where s/he must attempt to unravel whether or not a breach of the agreement has happened, and if so, how and to what extent, often based solely on hearsay. It may also leave the instructor legally liable if the instructor is issuing and requiring the completion of the forms. We point our students to such documents and we discuss when such documents are appropriate, and we also discuss appropriate sharing of their ideas, encouraging discussion with legal expertise if students seek more information.

Drawbacks

While the hands-off approach has many advantages, there are several downsides to the approach. The first is the onus it places on the instructor or mentor to ensure that teams are educated about potential legal implications to their businesses and have access to or are pointed in the direction of adequate legal counsel. This approach requires an active involvement of the faculty and staff up front, which means planned interactions early in the students' academic careers and/or classes to convey the necessary information.

One other challenge for this approach is that some students may be uncomfortable with the necessary conversations they must have with their teammates about how they wish to structure the equity in their idea. Without a clear policy in place, such students may not have the structure they need to make the best decisions possible for themselves or their businesses. This approach depends on students having the maturity and drive to seek their own guidance. At the other end, students have the freedom to discuss co-ownership on their own time sometimes focus on the issue at inappropriate times, such as when the team is first forming. This can result in friction as the business develops and can detract attention from other more important components of the business. In addition, if the conversation happens when an instructor or mentor is not around, it is a lost opportunity for a teaching moment.

Hands-Off Approach Conclusion

By removing ourselves from the legal decisions relating to co-ownership and referring our students to subject matter experts, we prevent the faculty from being put in a position where, well-intended or not, they may be giving bad legal advice. Students get to experience the real-world decisions of forming teams and creating intellectual property and businesses with oversight, but they never feel locked into a position. In addition, faculties are not required to assume additional responsibilities as "idea police," allowing them to focus on working with the students and their ideas. This comes at the sacrifice of control over the conversations—both in when and how they occur.

An Evolving Approach: California State University, Chico

This narrative speaks to the approach of a single course and incubator program and does not represent a University or program-wide policy, except where noted, or the approaches of other instructors in the Entrepreneurship program. The course and incubator programs described are intended to support students who would like to understand what a real attempt to launch a business requires; given that intention, it is especially appropriate for this course and related incubator program to concern itself with these issues. This write-up identifies the approach as it exists at the time of this writing.

At California State University, Chico, our e-Incubator program's goal is to launch businesses online as directly and efficiently as possible, and there is a corresponding course which allows students to earn credit for learning similar materials. The e-Incubator program is available to students across the university and expects students to launch a business, the course is an elective in the entrepreneurship program and teaches students what is entailed in the process, offering them an opportunity to launch or not.

The nature of the e-Incubator and course is a focus on the "Lean Start-Up" approach, which favors a rapid launch to test business models. Our approach is, "Test the business model using customer development techniques, and adjust as needed." We determined that for many student businesses, students themselves are potential customers, and so the course was ideal for a "mastermind" format where students from the whole class give significant feedback to all other student projects in the class. Students would sit in the "Founder's Chair" and get peppered politely with questions by their peers. Right from the first instance of this course, students identified the mastermind approach as a very valuable element of the course.

Given the fast-paced nature of the course and the highly collaborative culture, several guiding principles emerged to ensure the program provides an effective experiential exercise to students and teams working toward launching businesses and testing business models. The following guiding principles emerged:

1. Acknowledge that there is an actual potential for ownership/partnership issues and take steps to avoid these issues by taking reasonable precautions using our best available understanding.
2. Encourage students to understand the implications associated with corporate structure, IP protection, and team structure reasonably early.
3. Encourage students to begin participating in the "mastermind" approach to sharing as early as possible; students should feel generally safe and secure while sharing; a feeling of camaraderie should emerge from the safety of the environment.
4. Impart a sense of seriousness about trying as many ideas as possible that students feel are good. In other words, if possible, don't hold back your best idea—bring out your best stuff and go for it.
5. Recommend that students invest in legal advice as appropriate. Our experience indicates that students who pay for legal advice actually feel more committed, and thus by having some "skin in the game," seem to have a sense of commitment and this translates into higher engagement.

As students encounter this program, they immediately recognize that the notions of collaborating and safeguarding IP appear to be at odds, and naturally raise these as issues. This further opens the door to additional concerns. These concerns can be summarized as:

The University Policy on student IP and how it affects student businesses and ideas; Protecting ideas in a collaborative class;
 Handling equity (splitting, retaining, getting it back) while working on a team; Dealing with a desire to change ideas partway through the class;
 Incorporating as a legal entity; and
 Preparing for a pitch to the Accelerator Fund.

These concerns came up with regularity in each class and over the course of several semesters a common framework has emerged:

1. Present a set of overarching recommendations to provide context for the course;
2. Clarify the University Policy on student IP;
3. Clarify the classroom IP policy for intra-class understanding and agreement; and

4. Clarify the inter-student IP policy for managing teams and IP and encourage early understanding and decision making while remaining as flexible as possible.

OVERARCHING COURSE RECOMMENDATIONS

First and foremost, students are encouraged to decide what they want to get out of this course. Students are encouraged to develop ideas they are passionate about. Most students arrive with one or more ideas they are passionate about and want to pursue. There are other students who come in without an idea they are passionate about, but instead have a desire to learn the techniques for anticipated use at a later time. There are also students who have one or more ideas but still prefer to learn the techniques now and apply them later. The point is to encourage them to understand what they want to accomplish, what the ramifications are related to that purpose, and what they need to understand so they can take the appropriate steps. For example, a student who comes into the course without an idea and wants to join another student or team should be ready to accept that he or she is working on the project as a course effort, not as a business partner.

Students in the course have been exposed to corporate forms in a previous required course. We encourage students to immediately review materials covered in the prerequisite course since different corporate forms have different ownership, profit distribution and tax implications. This is a key area for hiring an attorney given its importance and level of complexity. Information, but not advice, is provided on the topic. Students should be able to get to the point where they can articulate and defend, in their own words, reasons for choosing a specific corporate form as a strategic element of their business model.

University Student IP Policy

For our students, one of the central concerns is not the equity split, but rather the ownership of IP generated during the formation process. We thus focus much of our co-ownership discussions around IP and provide two sources of information on this topic. First, students are directed to the actual university executive memorandum. Then, in class, a brief discussion covers important highlights.

In any ordinary class or function in which students enroll or participate, students are creating intellectual property they own. The value of this IP is undetermined and may of course be negligible. The primary means our university uses to establish an agreement relating to ownership of student IP is termed “extraordinary support.” This level of support “is normally agreed upon in advance and set forth in a contract.” The memorandum indicates that in the absence of a contract with the university, it is likely that extraordinary support does not exist. Students are told that if there are questions in their mind about ownership, they have an obligation to themselves and their team to resolve this to everyone’s satisfaction. Students are responsible for clarifying the ownership question with a private attorney or university attorney dealing in such matters.

Classroom IP Policy

The course syllabus contains a few important statements. Neither has been tested in any legal process, but they do seem to give students a general sense that everyone intends to play fair. The first is a “No Partnership” statement, and the second is a ‘Confidentiality’

statement. The “No Partnership” clause states that students come into the class and agree that while they will provide feedback on many other students’ ideas presented in class, they agree that there is no implied partnership. The language is more expressive than that, but essentially they are relinquishing all rights to their contributions to other teams, much the way an independent contractor does in a professional client-contractor relationship. Given that they themselves receive feedback on their own project, there does seem to exist valuable consideration, which may be important when considering the enforceability of the language.

The “Confidentiality” clause is simply intended to put all students on notice that only the creators and/or owners of projects are free to discuss them outside of class. This clause is intended to ease students’ minds rather than provide legal protection; indeed many students participate in competitions, surveying and interviewing of potential customers at some point in the semester, and at that point, the ideas are exposed to the general public. The clause specifies that we as a class respect that we are privileged in that we are receiving confidential information on other students’ projects.

Neither of these approaches has been tested legally, so there is no precedent upon which to assume these are enforceable. However, they do serve to initiate the spirit of collegiality and support that we are trying to impart into the classroom, so they are important from that perspective. While the status of syllabi as legal contracts has been brought under scrutiny from time to time, it seems more prudent to include them than to omit them.

Inter-Student IP Policy

Over the course of a semester, interest in and expectations of the business idea can change dramatically. There are a few approaches that have been used here, and they are flexible so they can cover a range of situations. One approach is the use of a standard contract, another is the use of a “class project” contract, and the last is a new approach (or rather a new take on an existing concept of dynamic equity splits) we are experimenting with that allocates “potential” equity based on agreed upon factors and measured contribution.

In a case where student teams come into the class, have already agreed upon an equity Split, and completed some development on the project, they are encouraged to formalize the agreement by putting it into writing via a standard contract. Despite how straightforward this appears on the surface, problems with these occur fairly often. The main problem that occurs is that one member decides he is not interested in the project anymore at some point, for example when the semester ends and the project has not yet taken off. Early project enthusiasm can lead to somewhat irrational thinking, and in retrospect, students may indicate they ‘over-shared’ equity and wish they had been more thoughtful about the division.

A “class project” contract is basically used by founders when they enter the class unwilling to give an equity sharing deal due to the amount of work they have already done on the project. Some students turn out to be very willing to join projects like this. They acknowledge that they are joining a project that a student has worked on previously, and that equity is not being offered. This approach has been used several times. In each case, the participants have decided that a modest monetary stipend was appropriate and subsequently was offered, negotiated and settled upon. The reason a monetary stipend was offered was based on suggestions by an attorney that a contract should provide value to each party and that some amount of money would demonstrate this was done. In two cases, an equity position was offered at the end of the semester to one or more of those who originally joined without an equity position.

Finally, there are many cases where students are unsure of how to structure a deal and want maximum flexibility, having team members earn equity. For this situation, , under the direction of legal counsel, students consider several approaches, one popular one being based on the ideas outlined by Mike Moyer in his book *Slicing Pie*. In this arrangement, different types of contributions are defined and categorized, and valuations are assigned. Contributions in the category of work like accounting and marketing are typically given hourly dollar valuations, which students can figure out fairly easily, along with multiplier values based on whether payment is made or not. Contributions in the form of cash, property, or other tangible goods are given agreed upon values. For example, the group may decide that early cash contributions are actually worth 4X the amount of the original contribution to account for risk. These valuations can be negotiated and agreed upon ahead of time. Then, as the team moves ahead, it tracks the investments for various contributions. In this approach, each individual is earning future equity.

Drawbacks

Whereas the hands-off approach allows great flexibility in who can be on a team and how roles may be structured, this more structured approach needs things to be better defined in order to ensure that the proper IP and co-ownership policies are applied to the team. This goes beyond just knowing whether or not the team was pre-formed or if the team will accept other people as employees rather than co-founders. Outside members joining a team may impose additional policies to come into play; for example, a professor or staff member joining a team may cause certain clauses of the university policy to apply with regards to IP and revenue sharing with the university, and these would need to be identified prior to the business being worked on in the class or program.

In addition, as discussed in the hands-off approach, getting students to sign confidentiality clauses or including such in the syllabus may give students a false sense of security or put the instructor or mentor in a difficult situation if a student seeks for it to be enforced. As noted, the legality of such documentation has not yet been tested, and the legal implications to the school are thus not fully understood.

Finally, dynamic equity splits are difficult to master and tedious to track, and because these are students who typically have relatively little work experience or business knowledge – it is challenging for them to establish what constitutes good value to a startup. Education and mentoring cannot completely mitigate the biases and naivety they may bring to the discussions, possibly resulting in unbalanced weighting of contributions.

Evolving Approach Conclusion

This semi-structured approach allows students to join an existing idea if their goal is to learn the process of entrepreneurship rather than launching their own business. The approach also enables a student to continue to retain ownership if they bring the idea to the class and prefer this approach. Dynamic equity splits encourage students to discuss with their teams how they wish to handle co-ownership through the use of quantitative measures so that equity is not an “either you’re in or you’re out” approach. This enables teams to move ahead with flexibility and it addresses shortcomings of a formal equity split, and associated challenges that may arise.

A Structured Approach: Ohio Northern University

Ohio Northern University has developed its entrepreneurship program with the goal of embedding the entrepreneurial mindset (EM) in all students across campus. EM includes effective collaboration in a team setting; applying critical and creative thinking to ambiguous problems; constructing a customer- appropriate value proposition; persisting through and learning from failure; and effectively managing projects. EM is embedded in all business core courses and the Principles of Entrepreneurship (POE) course is required for engineering and pharmacy students with an increasing number of Arts & Science programs.

One of the primary methods of operationalizing these outcomes is ONU's version of an elevator pitch competition held each semester. POE and other courses require students to participate. These teams can choose to submit their product ideas for consideration by the Business and Engineering colleges to become year-long senior capstone projects and seniors are encouraged to launch these products to market. POE students approached faculty with regards to ownership of the ideas after hearing that several of the senior capstone projects were successfully launched. Inadvertently, ONU failed to consider ownership of the ideas by the original teams that developed them. Additionally, clear ownership was not established with the senior teams.

Complicating the matter was the need to negotiate ownership of the business when the original teams merged with the senior teams, which could be comprised of just engineering students, just business students, or an interdisciplinary team. This could take a partnership from the original five student team up to potentially seventeen student teams.

Faculty Concerns

1. The faculty needed to address the following concerns while maintaining EM outcomes:
2. Students needed to understand the legal issues of entrepreneurship without impeding creativity and innovation that is so vital to the entrepreneurial mindset.
3. Students needed to negotiate issues with others in ambiguous situations where the outcomes are not black and white and not all negotiations are successful.
4. Students needed to pursue taking their ideas to market knowing that there is a personal risk to the endeavor and that not all ideas are feasible or successful.
5. Encourage teamwork and communication skills with students within their disciplines as well as across disciplines.
6. Establish clear lines of ownership for the original teams to protect their ideas while allowing them to be open to new possible partnerships that might address their team weaknesses.
7. Avoid any legal complications due to public disclosure issues and equity positions among the teams. There needed to be frank and open discussions about ownership rights and the amount of equity position in the partnerships based on perceived contributions of the original or new team members.
8. Attempt to keep this as simple as possible given that the faculty members do not have the necessary legal backgrounds to address the many issues that might occur.

Student Concerns

In the POE sections, students prepare for an elevator pitch competition over a five-week period. They are required to develop a product idea that is creative, unique, innovative, feasible, and marketable. The excitement leading up to the competition encourages them to be motivated and committed to being successful beyond the need for a passing grade. This is particularly important for the non-Business students who have not considered the opportunities provided by an entrepreneurial career. Their passion and sense of ownership becomes even more evident as

they work through the process of taking a product to market and it dawns on them that there is potential for profits while understanding the risks and potential for failure. Discussions within the team move from “Is the idea creative, unique, innovative, feasible, and marketable?” to “How do we protect our assets?” They express concern about how much to pitch—whether they want to submit their idea for consideration as a senior capstone project or maintain it solely as their own. They inevitably move from perceiving this event as a mere class assignment to the true entrepreneurial potential it can become for them.

Handling Ownership and Disclosure

Given all of the concerns, ONU developed a non-disclosure form and a simple one-page ownership equity form (OEF). The non-disclosure form is employed only during the elevator pitch competition and signed by the judges. The form provides protection for the students’ product ideas from basic public disclosure issues. It is explained to the judges that students may be taking their ideas to market and request that they do not ask questions that may impede patentability.

Leading up to the competition, IP and public disclosure issues are discussed with students in class. As teams, they explore the US Patent Office web site for prior art and complete internet searches to ensure that their idea is sufficiently unique from similar products to patent. Additionally, students are coached by faculty not to disclose any specifics that may impede patentability with other students or with the judges during the competition. While they are encouraged to produce prototypes, ONU discourages the use of CAD drawings or other detailed material, discussing the impact of this decision on their ability to patent their ideas.

The OEF was developed by a POE faculty who is a practicing attorney in the state of Ohio. Currently, it is only used in the POE course sections. It is very basic and written so that students understand what they are signing. The form consists of two options: Option 1 allows students to maintain all ownership rights to the product idea; and Option 2 allows students to relinquish all ownership rights. It is assumed that ownership is divided equitably among each team member unless agreed upon by the team differently.

Each team member is required to sign the form either maintaining or relinquishing their ownership rights. The form is distributed to the teams during class following a discussion on business formats, including what should be included in partnership agreements and basic articles of incorporation. Students are given time in class to negotiate with their team members about who wants to maintain or relinquish ownership, and, in some instances, they will negotiate equity positions. Recognizing that many of our students may not understand the ramifications of signing the form, we give the students additional time so that they may discuss the options with their parents/guardians.

If product ideas are considered for senior capstone projects, then the senior teams enter into negotiations with the original team that chose Option 1. The teams have two choices: one, negotiate a new partnership agreement with new equity positions established; or two, the senior teams can simply be considered as consultants. Negotiation for reimbursement of services if the original team takes the product to market then becomes necessary. It is also understood that not all students in the competition are interested in pursuing their ideas to market for any number of reasons and choose Option 2. However, some of these ideas are marketable and could still be considered for senior capstone projects. Option 2 allows the senior teams to pursue these opportunities unimpeded and under no obligation to the original team members.

Drawbacks

As noted before, one of the challenges with legal documents in a classroom or academic environment relating to co-ownership (including IP protection) issues is that they have not been tested in the courts. To what extent such documents would hold up, the university might be held liable, or the extent of language that must be provided is uncertain. That being said, the documents for ONU follow the structure of documents that would be provided to any person looking to start a business, so it seems reasonable to expect that the documents would be accepted in court.

At ONU, students are offered the option to decide whether they will retain or relinquish all ownership rights of their idea at the end of the POE class. Extrapolating this larger, structured approach encourages students to make the determination to what extent they wish to remain involved in the future of their business. However, students may not be equipped to handle such a decision at that point depending on their own personal process for making big decisions and whether or not they truly understand what they are being asked to decide. Even knowing that this decision is coming and given a week to consider the document, some students may feel rushed in their decision. Others may not like the binary states, instead preferring to have the option to leave, stay, or re-join the business later at their choosing.

Structured Approach Conclusion

Since instituting the use of the forms, ONU has not had any issues, but the form is untested and is continuing to be update to address new issues as they arise. Faculty appreciates the clear guidance, and many student teams are satisfied with the level of IP protection and clarity relating to co-ownership of the business that the forms provide. By treating the student teams essentially like newly forming businesses right from the start, ONU creates a professional environment and immerses them in the decisions businesses face. This comes at the expense of flexibility for the students and teams—decisions need to be made when the documents are offered to ensure that all teams are covered by the policy.

Factors to Consider When Building or Refining a University Policy

Each approach is different and comprehensive, and a person or group looking to implement or change their current co-ownership policy may be uncertain where to start when seeking to change their own university, program, or class's policy. Below, we outline the process all three schools used to change or create the policies discussed above.

At the university level, you first need to determine whether your university has a policy and whether students and faculty know about it. If there is a policy already in place, it needs to be actively disseminated to the students, faculty, and staff. Changes may be made after people are aware of the full extent of the policy as understanding the baseline is key to ensuring that any modifications are consistent with an approach fostering entrepreneurship, protecting the university, faculty, staff, and students, and staying true to Federal law. If there isn't a policy, all relevant stakeholders should discuss whether a policy should be developed at the university level and what it should cover. This process should then be repeated for increasingly smaller groups, such as for a School of Business, a major, and programs within the major. It is possible that several levels will not have a policy. At Quinnipiac, for example, there is little policy at the

university level and none at the school or program level. The policy is currently applied throughout the major and is being considered for raising it up to the university level.

Once a policy (or policies) is in place, each class's syllabus should reflect the policy and direct students to where the policy can be found. If the language is dense or beyond the scope of the students' current understanding, class time or materials need to be made available to help the students understand the policy. Students should be notified what the classroom policy is prior to having to disclose any information about their ideas and before any teams are formed. Instructors should consider how they wish to handle non-disclosure agreements, if at all, if such are not covered in the policy.

As a result of the policy, students should have a default process or state for their business. That is, the policy should not leave students in a void. At ONU and California State University, Chico, this is accomplished through the documents the students develop and sign. At Quinnipiac University, there is a blanket policy that clearly identifies students' relationships to their businesses in the event that the students do not create some other document. Thus, for any given group of students, students should negotiate a team contract or accept the default policy of the class. Prior to choosing an approach, they need to discuss how to handle under-, non-, and over-performers; equity ownership; and patent, trademark, and copyright ownership. Mentoring and class lessons can be provided to help facilitate this process.

CONCLUSION

Students gain academic value from collaborating with others in experiential learning activities in the classroom and extracurricular activities that may or may not create future intellectual property, such as patentable products (Herrington, 2010). But as discussed, it is important that students, faculty, staff, and the administration at universities have a clear understanding of the potential pitfalls. "When all parties to collaborative interactions are aware of the legal implications of their choices and make decisions that are consistent with the outcomes they desire, collaborative work can be beneficial to all" (Herrington, 2010, 49).

We have discussed here three different approaches: a hands-off approach that leaves the responsibility for ownership and IP protection in the hands of the students; an evolving approach that continually attempts to adapt to the co-ownership needs of its student teams; and a more structured approach with clear guidelines about establishing ownership of business ideas. All three approaches include education about ownership and IP protection issues, and all three allow students to make informed decisions about these topics. In addition, each approach also incorporates students receiving expert legal advice, through encouraging them to seek it out, through having such experts provide input into the design of the program, or both.

So far, none of the three approaches has been tested in a court of law, and indeed, that may very well be a sign that they are effective. Each approach attempts to prevent students from reaching the point where they feel that pursuing a lawsuit is the best (or only) option regarding their business idea. This is relatively uncharted territory since no major lawsuits have been filed against a school yet. However, the key word there is "yet"; with the growth of entrepreneurship programs across the country, there will come a time when such issues will arise. A school unprepared for that day may very well find itself implementing a set of policies that could quash the innovativeness and openness needed for a robust entrepreneurial community in its school. The goal of this paper is to begin a larger discussion of handling the legal side of entrepreneurship at all schools, allowing educators to create the best experiences for students and faculty alike.

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RELATIONSHIP BETWEEN STUDENTS' FAMILY REASONS AND THEIR INTENTION FOR ENTREPRENEURSHIP

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ABSTRACT

This paper studies if there is a relationship between (a) the students' rating of the three family related variables as important or unimportant and (b) their intention to start their own business; or their intention to work for someone else; after they have completed their undergraduate education, whether or not they have completed work for a degree.

Statistical testing of various responses using eighteen hypotheses found no such relationships.

The first nine statistical tests found no relationship between the students' rating of the three family related variables as important and unimportant (Q. 16, 17, and 18) and their intention to start their own business (Q15ab) once they have completed their undergraduate studies whether they have obtained a degree or not—data classified by male, female, and total components.

Similarly, the remaining nine statistical tests also found no relationship between the students' rating of the three family related variables as important and unimportant (Q. 16, 17, and 18) and their intention to work for someone else (Q15c) once they have completed their undergraduate studies whether they have obtained a degree or not—data classified by male, female, and total components.

This article is one of a kind in two particular ways. One, it presents (a) students' intention for starting a business and (b) students' intention for working for someone else in the same writing; and two, it is based on the data that were collected about ten years ago which has its own historical significance for comparison for future studies. Suggestions for improvement would be highly appreciated.

INTRODUCTION

Joseph Schumpeter (1934) was one of those few who pioneered and encouraged research into the various areas of entrepreneurship. Researching the role of one's family in starting and building a business was one of those fields that scholars and practitioners continue to investigate.

According to Bird et al. (2002), family business clearly played a critical role in the global prominence of the industrial age.

Parents are naturally motivated to build a business that they can pass on to their children. What a heritage to leave for their children!

The family experience in business has regularly helped new business creation and development process (e.g., Hundley 2006; Katz 1992; Krueger 1993; Matthews and Moser 1995, 1996). (Cited in Dyer, et al (2014).

A study by Robinson and Stubberud (2012) examines the proportions of men and women in a variety of European countries whose motivation for starting a business was based on a

family tradition for self-employment. The results show that, in several countries, more women than men state that this tradition was a motive for entrepreneurship.

Based on his empirical research, Hundley (2006) concluded that men with self-employed fathers and higher parental incomes are more likely to be self-employed. (cited in Dyer, et al (2014) Text is partly mine. See original articles.

A family often provides various kinds of critical support in the establishment and enhancement of a business. Family capital consists of human, social, and financial resources (Danes et al. 2009; Nahapiet & Ghoshal, 1998; Dyer 2006; cited in Dyer, et al.).

According to Fairlie and Robb (2008), cited by Dyer, et al. (2014), children of self-employed parents are three times more likely to become self-employed than children whose parents are not self-employed.

According to Sirmon and Hitt (2003), the collective financial capital, the “survivability capital,” that a family can provide a new firm can empower it with a competitive advantage over those firms which don’t have such an access. (Cited in Dyer, et al (2014).

Clearly, the role of family in entrepreneurship continues to be researched regularly and extensively. However, much more needs to be done in this important area.

PURPOSE OF RESEARCH

Purpose of Overall Research

The overall purpose of this research is to find if there is a statistical relationship between a number of independent variable and the Lubin School of Business students’ intention to become entrepreneurs after they have completed their undergraduate education, whether or not they have completed education for a degree.

Two academic journal articles have already been published based on these data; in addition to an article in conference proceedings.

Purpose of this Particular Article

The objective of this particular article is limited to analyzing the selected variables included in the questionnaire that related to the “Relationship between students’ family reasons and their intention for starting a business” (entrepreneurship). In particular, it studies the role of the following three micro variables in students’ intention to start a new business; or to work for someone else; after they have completed their education; whether or not they have obtained a degree. These three variables are: (1) “family tradition,” (2) “family encouragement,” and (3) “family can provide monetary support.” An extensive survey of literature did not reveal any such study done in the past that examined the duality of these intentions in the same investigation.

The relationship of these three micro variables to the students’ intention for entrepreneurship, or to work for someone else, has been studied by testing a total of eighteen hypotheses as stated later in the article.

Limitations of Study: Nature of Student Population

This is a study of the Lubin students who were taking undergraduate business courses (accounting, information system, management, or marketing) at different class levels (first, second, third, or fourth year) during the study period. The 366 students chosen for the study were

all different individuals. This is not a study of the same individuals as they progressed from their first year of study through to their fourth year.

Limitations of Study: Statistical Testing Tool

Several statistical techniques, such as chi-square, regression analysis, and t-test, are available to test the validity of a set of data. All the same, only the chi-square technique has been used to test the validity of data used in this research, because the data gathered amply satisfy the following four primary assumptions of the Pearson's chi-squared test: (a) Independence of observations, (b) large enough expected cell counts, (c) randomness of data, and (d) sufficient sample size (Yates, Moore & McCabe, 1999).

Significance of the Study

This article is one of a kind that deals with students' family reasons both (a) To intend to become entrepreneurs and (b) To intend to work for someone else at the same time. Literature is replete with the studies that deal with the students' intention to become entrepreneurs. However, an extensive survey of literature has shown that not much has been written on the students' intention to work for someone else. Research articles dealing with both at the same time were found to be non-existent.

This article is based on the data that were collected about ten years ago. Its findings, therefore, may have their own temporal historical significance for scholars doing micro research in this important area.

Possible areas of improvement

While the research reported in this article is unique in its own way, the author, based on the reviewers' suggestions, if needed, would be glad to enhance its contents in the areas such as follows:

1. Additional computations and/or statistical tests.
2. Depth and breadth of survey of literature.
3. Additional analysis of data, such as breakdown of the total responses by individual class years (first year, second year, third year, and fourth year).

RESEARCH METHODOLOGY

Questionnaire

A 6-page questionnaire containing 91 questions (variables) was designed for this study for distribution among selected undergraduate students at the Lubin School of Business, Pace University New York during December 2004 – December 2005 period. The 91 variables were classified into the following eight groups:

1. Personal data: Gender, age group, marital status, father's employment, father's income, mother's employment, mother's income, (questions 1-7)
2. Educational data: Current student status, current year of study, degree program, major area of study in the broad discipline of business, grade point average, (questions 8-12)
3. Respondent's employment status, respondent's income, (questions 13-14)

4. Respondent's intention to start own business, work for a family business, work for someone else (Question 15)
 5. Reasons for starting your own business (Table 1, questions 16-34; or 19 questions)
 6. Reasons for not working for someone else (Table 2, questions 35-53; or 19 questions)
 7. Reasons for not starting your own business (Table 3, questions 54-72; or 19 questions)
 8. Reasons for working for someone else (Table 4, questions 73-91; or 19 questions)
- I. Of the four tables included in the questionnaire, the students were asked to answer only two of them: Either, answer Tables 1 and 2, or, answer Tables 3 and 4. A note to this effect appeared at the bottom of each table. Thus in effect, it was only a 53-questions questionnaire (15+19+19).
 - II. Each of the 19 questions included in each table had 1-5 possible answers: (a) Unimportant, (b) Important-somewhat (c) Important-average, (d) Important-above average, and (e) Very important. Note: describe how they were grouped.

Collection and Selection of Data

Copies of the questionnaire were sent to the author's faculty colleagues who agreed to allow their students to participate in the study. The number of students' responses varied. Not every student who participated in the study answered all the 53 questions (total 91 questions minus 38 questions that had to be ignored because of the nature of the questionnaire).

A total of 435 questionnaires were returned by the students. Of these, 366 questionnaires were found usable for this particular article. The remaining 69 questionnaires were withdrawn for this study for the reasons such as follows:

1. Did not answer the question about class level.
2. Did not answer any question included in the four tables.
3. Answered only a single table or a combination of the tables inconsistent with the guidelines provided.

Exhibits Included

For readers' information and convenience, a total of seven exhibits are included in this article. Exhibit 1 presents a list of questions related to students' gender, class year, intention, and rating of family reasons as presented in the questionnaire. The other six exhibits deal with the students' rating of family variables and their intention to start their own business, or to work for someone else.

Exhibit 1: List of Questions

- Related to Students' Gender, Class Year, Intention, and Rating of Family Reasons; As Presented in the Research Questionnaire (With their Original Question Numbers)

Exhibit 2: Summary of Null Hypotheses Testing and Decisions

- Relationship between Students' rating of the "Family tradition" as important and unimportant (Q16) and their intention to start their own business (Q 15ab); Broken down by totals and gender

Exhibit 3: Summary of Null Hypotheses Testing and Decisions

- Relationship between Students' rating of the "Family encouragement" as important and unimportant (Q17) and their intention to start their own business (Q 15ab); Broken down by totals and gender

Exhibit 4: Summary of Null Hypotheses Testing and Decisions

- Relationship between Students' rating of the "Family can provide monetary support" as important and unimportant (Q18); and their intention to start their own business (Q 15ab); Broken down by totals and gender

Exhibit 5: Summary of Null Hypotheses Testing and Decisions

- Relationship between Student's rating of the "Family tradition" as important and unimportant (Q16) and their intention to work for someone else (Q 15c); Broken down by totals and gender

Exhibit 6: Summary of Null Hypotheses Testing and Decisions

- Relationship between Student's rating of the "Family encouragement" as important and unimportant (Q17) and their intention to work for someone else (Q 15c); Broken down by totals and gender

Exhibit 7: Summary of Null Hypotheses Testing and Decisions

- Relationship between Student's rating of the "Family can provide monetary support" as important and unimportant (Q18) and their intention to work for someone else (Q 15c); Broken down by totals and gender

NULL HYPOTHESES TESTING AND DECISIONS HYPOTHESES 1-9 FAMILY VARIABLES & INTENTION FOR ENTREPRENEURSHIP

Hypotheses 1-3: Relationship between "Family Tradition" and Intention for Entrepreneurship

Null Hypothesis 1: There is no relationship between Students' rating of the "family tradition" as important or unimportant (Q 16) and their Intention to start their own business (Q15ab).

(For the total of all males and females)

- Alternate hypothesis 1: There is such a statistical difference.

Null Hypothesis 2: There is no relationship between Students' rating of the "family tradition" as important or unimportant (Q 16) and their Intention to start their own business (Q15ab).

(For the total of all males)

- Alternate hypothesis 2: There is such a statistical difference.

Null Hypothesis 3: There is no relationship between Students' rating of the "family tradition" as important or unimportant (Q 16) and their Intention to start their own business (Q15ab).

(For the total of all Females)

- Alternate hypothesis 3: There is such a statistical difference.

Findings: Hypotheses 1, 2, and 3

A summary of the statistical analysis of data related to the three hypotheses stated above is presented in Exhibit 2. It also shows the decisions reached based on this analysis.

It accepts the Null Hypothesis 1 which states that (for the total of all males and females) there is no relationship between Students' rating of the "family tradition" as important or unimportant (Q 16) and their intention to start their own business (Q15ab) once they have completed their undergraduate studies whether they have obtained a degree or not. It is so because the calculated value of X^2 , 0.7496, is smaller than the critical (tabulated) value of X^2 , 3.8410, with 1 degree of freedom, $\alpha=.05$.

Likewise it also accepts the Null Hypothesis 2 that deals with only the male component of the students. In this case the calculated value of X^2 , 0.2255, is smaller than the critical (tabulated) value of X^2 , 3.8410, with 1 degree of freedom, $\alpha=.05$.

Similarly, it also accepts the Null Hypothesis 3 that deals only with only the female component of the students In this case the calculated value of X^2 , 0.6649, is smaller than the critical (tabulated) value of X^2 , 3.8410, with 1 degree of freedom, $\alpha=.05$.

Hypotheses 4-6: Relationship between "Family Encouragement" and Intention for Entrepreneurship

Null Hypothesis 4: There is no relationship between Students' rating of the "family encouragement" as important or unimportant (Q 17) and their Intention to start their own business (Q15ab).

(For the total of all males and females)

- Alternate hypothesis 4: There is such a statistical difference.

Null Hypothesis 5: There is no relationship between Students' rating of the "family encouragement" as important or unimportant (Q 17) and their Intention to start their own business (Q15ab).

(For the total of all Males)

- Alternate hypothesis 5: There is such a statistical difference.

Null Hypothesis 6: There is no relationship between Students' rating of the "family tradition" as important or unimportant (Q 17) and their Intention to start their own business (Q15ab). (For the total of all Females)

- Alternate hypothesis 6: There is such a statistical difference.

Findings: Hypotheses 4, 5, and 6

A summary of the statistical analysis of data related to the three hypotheses stated above is presented in Exhibit 3. It also shows the decisions reached based on this analysis

It accepts the Null Hypothesis 4 which states that (for the total of all males and females) there is no relationship between Students' rating of the "family encouragement" as important or unimportant (Q 17) and their intention to start their own business (Q15ab) once they have completed their undergraduate studies whether they have obtained a degree or not. It is so because the calculated value of X^2 , 0.7496, is smaller than the critical (tabulated) value of X^2 , 3.8410, with 1 degree of freedom, $\alpha=.05$.

Likewise it also accepts the Null Hypothesis 5 that deals with only the male component of the students. In this case the calculated value of X^2 , 0.0082, is smaller than the critical (tabulated) value of X^2 , 3.8410, with 1 degree of freedom, $\alpha=.05$.

Similarly, it also accepts the Null Hypothesis 6 that deals with only the female component of the students. In this case the calculated value of X^2 , 0.0272, is smaller than the critical (tabulated) value of X^2 , 3.8410, with 1 degree of freedom, $\alpha=.05$.

Hypotheses 7-9: Relationship Between "Family Can Provide Monetary Support" and Intention for Entrepreneurship

Null Hypothesis 7: There is no relationship between Students' rating of the "family can provide monetary support" as important or unimportant (Q 18) and their Intention to start their own business (Q15ab).

(For the total of all males and females)

- Alternate hypothesis 7: There is such a statistical difference.

Null Hypothesis 8: There is no relationship between Students' rating of the "family can provide monetary support" as important or unimportant (Q 18) and their Intention to start their own business (Q15ab).

(For the total of all males)

- Alternate hypothesis 8: There is such a statistical difference.

Null Hypothesis 9: There is no relationship between Students' rating of the "family can provide monetary support" as important or unimportant (Q 18) and their Intention to start their own business (Q15ab).

(For the total of all females)

- Alternate hypothesis 9: There is such a statistical difference.

Findings: Hypotheses 7, 8, and 9

A summary of the statistical analysis of data related to the three hypotheses stated above is presented in Exhibit 4. It also shows the decisions reached based on this analysis.

It accepts the Null Hypothesis 7 which states that (for the total of all males and females) there is no relationship between Students' rating of the "family can provide monetary support" as important or unimportant (Q 18) and their intention to start their own business (Q15ab) once they have completed their undergraduate studies whether they have obtained a degree or not. It is so because the calculated value of X^2 , 0.4866, is smaller than the critical (tabulated) value of X^2 , 3.8410, with 1 degree of freedom, $\alpha=.05$.

Likewise it also accepts the Null Hypothesis 8 that deals with only the male component of the students. In this case the calculated value of X^2 , 1.2509, is smaller than the critical (tabulated) value of X^2 , 3.8410, with 1 degree of freedom, $\alpha=.05$.

Similarly, it also accepts the Null Hypothesis 9 that deals only with only the female component of the students. In this case the calculated value of X^2 , 0.0636, is smaller than the critical (tabulated) value of X^2 , 3.8410, with 1 degree of freedom, $\alpha=.05$.

Summary of Statistical Findings (Q. 16, 17, and 18 vs. Q. 15ab)

All nine statistical tests found no relationship between the students' rating of the three family related variables as important and unimportant (Q. 16, 17, and 18) and their intention to start their own business (Q15ab) once they have completed their undergraduate studies whether they have obtained a degree or not—data classified by male, female, and total components.

NULL HYPOTHESES TESTING AND DECISIONS HYPOTHESES 10-18

FAMILY VARIABLES & INTENTION TO WORK FOR SOMEONE ELSE

Hypotheses 10, 11, and 12: Relationship between Family Tradition and Intention to Work for Someone Else

Null Hypothesis 10: There is no relationship between Students' rating of the "family tradition" as important or unimportant (Q 16) and their Intention to work for someone else (Q15c).

(For the total of all males and females)

- Alternate hypothesis 10: There is such a statistical difference.

Null Hypothesis 11: There is no relationship between Students' rating of the "family tradition" as important or unimportant (Q 16) and their Intention to work for someone else (Q15c).

(For the total of all Males)

- Alternate hypothesis 11: There is such a statistical difference.

Null Hypothesis 12: There is no relationship between Students' rating of the "family tradition" as important or unimportant (Q 16) and their Intention to work for someone else (Q15c).

(For the total of all Females)

- Alternate hypothesis 12: There is such a statistical difference.

Findings: Hypotheses 10, 11, and 12

A summary of the statistical analysis of data related to the three hypotheses stated above is presented in Exhibit 5. It also shows the decisions reached based on this analysis.

It accepts the Null Hypothesis 10 which states that (for the total of all males and females) there is no relationship between Students' rating of the "family tradition" as important or unimportant (Q 16) and their intention to work for someone else (Q15c) once they have completed their undergraduate studies whether they have obtained a degree or not. It is so because the calculated value of X^2 , 1.3090, is smaller than the critical (tabulated) value of X^2 , 3.8410, with 1 degree of freedom, $\alpha=.05$.

Likewise it also accepts the Null Hypothesis 11 that deals with only the male component

of the students. In this case the calculated value of X^2 , 0.4221, is smaller than the critical (tabulated) value of X^2 , 3.8410, with 1 degree of freedom, $\alpha=.05$.

Similarly, it also accepts the Null Hypothesis 12 that deals only with only the female component of the students. In this case the calculated value of X^2 , 1.0449, is smaller than the critical (tabulated) value of X^2 , 3.8410, with 1 degree of freedom, $\alpha=.05$.

Hypotheses 13, 14, 15: Relationship between Family Encouragement and Intention to Work for Someone Else

Null Hypothesis 13: There is no relationship between Students' rating of the "family encouragement" as important or unimportant (Q 17) and their Intention to work for someone else (Q15c).

(For the total of all males and females)

- Alternate hypothesis 13: There is such a statistical difference.

Null Hypothesis 14: There is no relationship between Students' rating of the "family encouragement" as important or unimportant (Q 17) and their Intention to work for someone else (Q15c).

(For the total of all Males)

- Alternate hypothesis 14: There is such a statistical difference.

Null Hypothesis 15: There is no relationship between Students' rating of the "family tradition" as important or unimportant (Q 17) and their Intention to work for someone else (Q15c).

(For the total of all Females)

- Alternate hypothesis 15: There is such a statistical difference.

Findings: Hypotheses 13, 14, and 15

A summary of the statistical analysis of data related to the three hypotheses stated above is presented in Exhibit 6. It also shows the decisions reached based on this analysis.

It accepts the Null Hypothesis 13 which states that (for the total of all males and females) there is no relationship between students' rating of the "family encouragement" as important or unimportant (Q 17) and their intention to work for someone else (Q15c) once they have completed their undergraduate studies whether they have obtained a degree or not. It is so because the calculated value of X^2 , 0.0539, is smaller than the critical (tabulated) value of X^2 , 3.8410, with 1 degree of freedom, $\alpha=.05$.

Likewise it also accepts the Null Hypothesis 14 that deals with only the male component of the students. In this case the calculated value of X^2 , 0.0154, is smaller than the critical (tabulated) value of X^2 , 3.8410, with 1 degree of freedom, $\alpha=.05$.

Similarly, it also accepts the Null Hypothesis 15 that deals with only the female component of the students. In this case the calculated value of X^2 , 0.0456, is smaller than the critical (tabulated) value of X^2 , 3.8410, with 1 degree of freedom, $\alpha=.05$.

Hypotheses 16, 17, 18: Relationship Between “Family Can Provide Monetary Support” and Intention to Work for Someone Else

Null Hypothesis 16: There is no relationship between Students’ rating of the "family can provide monetary support" as important or unimportant (Q 18) and their Intention to work for someone else (Q15c).

(For the total of all males and females)

- Alternate hypothesis 16: There is such a statistical difference.

Null Hypothesis 17: There is no relationship between Students’ rating of the "family can provide monetary support" as important or unimportant (Q 18) and their Intention to work for someone else (Q15c).

(For the total of all males)

- Alternate hypothesis 17: There is such a statistical difference.

Null Hypothesis 18: There is no relationship between Students’ rating of the "family can provide monetary support" as important or unimportant (Q 18) and their Intention to work for someone else (Q15c).

(For the total of all females)

- Alternate hypothesis 18: There is such a statistical difference.

Findings: Hypotheses 16, 17, and 18

A summary of the statistical analysis of data related to the three hypotheses stated above is presented in Exhibit 7. It also shows the decisions reached based on this analysis.

It accepts the Null Hypothesis 16 which states that (for the total of all males and females) there is no relationship between Students’ rating of the "family can provide monetary support" as important or unimportant (Q 18) and their intention to work for someone else (Q15c) once they have completed their undergraduate studies whether they have obtained a degree or not. It is so because the calculated value of X^2 , 0.8497, is smaller than the critical (tabulated) value of X^2 , 3.8410, with 1 degree of freedom, $\alpha=.05$.

Likewise it also accepts the Null Hypothesis 17 that deals with only the male component of the students. In this case the calculated value of X^2 , 2.3415, is smaller than the critical (tabulated) value of X^2 , 3.8410, with 1 degree of freedom, $\alpha=.05$.

Similarly, it also accepts the Null Hypothesis 18 that deals with only the female component of the students. In this case the calculated value of X^2 , 0.0999, is smaller than the critical (tabulated) value of X^2 , 3.8410, with 1 degree of freedom, $\alpha=.05$.

Summary of Statistical Findings (Q. 16, 17, and 18 vs. Q. 15c)

All nine statistical tests found no relationship between the students’ rating of the three family related variables as important and unimportant (Q. 16, 17, and 18) and their intention to work for someone else (Q15c) once they have completed their undergraduate studies whether they have obtained a degree or not—data classified by male, female, and total components.

SURVEY OF LITERATURE

Several articles have been written about the role of family in entrepreneurial intention. Many of them encourage such intention. While some other studies are not as supportive. Some of them even reflect negatively on the family experience.

Many students chose to work for someone else after completing their education; instead of choosing to become entrepreneurs. An extensive survey of literature using sources such as EBSCO did not turn up any previous studies concluding that any particular family variables were instrumental for people not to become entrepreneurs. It, however, can be surmised that if starting a business requires good amount of money, then the family not having such money may discourage its members not even think of starting a business.

On the other hand, several studies were found which directly dealt with why students and others want to work for someone else, instead of starting a business.

A survey of literature reflecting on these areas is presented below.

Family Role: Contributory to Entrepreneurship

In a study of university students from 14 countries, Engle, Schlaegel, and Delanoe (2011) concluded, among other things, that each of the three individual factors which comprise Ajzen's (1991) social norms significantly contribute to entrepreneurial intent across all countries: parental experience, culture, and gender egalitarianism.

A business with a family name and relationship generates more trust and respect among various stakeholders. Such advantages are often not available to businesses which don't have a family connection. (Seidel, Polzer, & Stewart, 2000; Stuart, Ha, and Hybels 1999; cited in Dyer, et al. (2014)).

The family capital has been quite successful in promoting the spread and enhancement of the Chinese family businesses (Fukuyama, 1995; Light 1972; Light and Gold 2008). (Cited in Dyer, et al (2014)).

A survey of 180 undergraduate business school students, by Zampetakis, Gotsi, Andriopoulos, and Moustakis (2011), shows that the more creative young people consider themselves to be, the higher are their entrepreneurial intentions. Students' creativity also fully mediates the effect of family support for creativity on their entrepreneurial intention. Support for creativity in the university is found to have no effect on their creativity or on their entrepreneurial intention. Entrepreneurship course attendance moderates the effect of individual creativity on entrepreneurial intention. Done. Recheck first name, last name.

Qureshi, Naveed Ahmed, and Sarfraz (2011) studied a sample of 300 students of higher education institutes of Punjab. The results indicate that males and people having families with business exposure are more inclined to start their own business enterprise than females and students not having family business exposure. In addition, environmental factors do not significantly affect the entrepreneurial intentions among the business students of higher education institutes of Punjab.

Siqueira (2007) analyzed 2000 Census data relating to the Brazilian immigrants in the United States to examine the extent to which the human capital and the family social capital theories explain the probability of owning a business. She observed, among other things, that the presence of a co-habiting spouse, treated as an indicator of family social capital, enhances the probability that immigrants will own their own establishment.

In this study, Yeng Keat and Shuhymee (2012) examine motivators, challenges, etc. faced by 153 Universiti Utara Malaysia's undergraduate students to start up their new ventures.

They found, among others that gender and birth order affect one's entrepreneurial intention significantly. They also found that motivators such as extrinsic rewards and government assistance play a significant role in promoting entrepreneurship. On the other hand, financial and operational problems seemingly impede their effort to launch a new venture.

A survey of 180 undergraduate business school students, by Zampetakis, Gotsi, Andriopoulos, and Moustakis (2011), shows that the more creative young people consider themselves to be, the higher are their entrepreneurial intentions. Students' creativity also fully mediates the effect of family support for creativity on their entrepreneurial intention. Support for creativity in the university is found to have no effect on their creativity or on their entrepreneurial intention. Entrepreneurship course attendance moderates the effect of individual creativity on entrepreneurial intention.

A study of 447 undergraduate business students from three South African Universities done by Farrington, Venter, and Louw (2012) shows that the demographic variables, university attended, level of study, and ethnicity have a significant influence on the intentions of respondents to start their own businesses.

Family Role: No Effect on Entrepreneurship

The study by Göksel and Aydintan (2011) aims to reveal the effects of personality traits such as proactivity, internal locus of control, and the need for achievement as well as gender, business education, and family entrepreneurship, if any, on an individual's propensity to entrepreneurship, and the power of these effects. Carried out on 175 business administration students in Turkey, Ankara, the study has found, among other things, that personality traits do increase entrepreneurial intentions, which are affected more by internal locus of control than any other factor, but that gender, family business, and business education make no difference on an individual's propensity to entrepreneurship.

Kolvereid (1996) research applied the theory of planned behavior to predict employment status choice, defined as the intention to enter an occupation as a wage or salaried individual or as a self-employed one. The role of family background, sex, and prior self-employment experience was also investigated.

Using a sample of 128 Norwegian undergraduate business students, the findings strongly support the theory of planned behavior as applied to employment status choice intentions. Moreover, demographic characteristics were found to influence employment status choice intentions only indirectly through their effect on attitude, subjective norm, and perceived behavioral control.

Using a sample of 51 students belonging to second module postgraduate diploma in management (All India Management Association) program at Dayananda Sagar Institutions (DSI) campus, Bangalore, India, Kumara and Sahasranam (2009) found that the student's academic marks and father/ guardian's occupation have little influence on their entrepreneurial characteristics.

Akanbi and Ofoegbu (2011) examined the influence of some selected situational factors (perceived feasibility, perceived desirability, future unemployment, future family commitments and subjective norms) on entrepreneurial intentions among 392 undergraduate students in a private university in Oyo, Oyo State, Nigeria. The study revealed that the situational factors can have a significant effect or impact on an individual's entrepreneurial intentions.

In a study of undergraduate students at an American university, Bhandari's (2012) research rejected its first three hypotheses: (a) That there is no statistical difference between these students' fathers' employment--and these students' intention to starting a business; (b) That there is no statistical difference between these students' mothers' employment--and these students' intention to starting a business; (c) That there is no statistical difference between students' own employment--and their intention to starting a business. However, the study accepted the fourth hypothesis; that there is no statistical difference between students' gender--and their intention to starting a business once they have completed their education, whether or not they obtained a degree.

Family Role: Negative Effect on Entrepreneurship

Kets de Vries (1977, 1985) found that certain entrepreneurs may have problems developing positive relationships with family members; thus making it difficult for them to have access to family resources. As such, entrepreneurs often come from family backgrounds where neglect, desertion, poverty, and death are common themes. (Cited in Dyer, et al (2014).

Fatoki and Chmdoga (2011) investigated obstacles to youth entrepreneurial intention in South Africa. The results indicate that youths perceive lack of capital, lack of skill, lack of support, lack of market opportunities and risk as the main obstacles to entrepreneurial intention.

Fatoki (2010) investigates the entrepreneurial intention of South African graduates as well as the motivators and obstacles to entrepreneurial intention. 701 students in their final year of study participated in the survey. The results indicate that the entrepreneurial intention of South African students is very weak. In addition, the study identified five motivators of entrepreneurial intention. These are employment, autonomy, creativity, economic and capital. The obstacles to entrepreneurial intention of South African graduates are capital, skill, support, risk, economy and crime.

Factors Discouraging Entrepreneurship

Here are some of the studies that dealt with topics such as follows: (a) Why some people don't want to become entrepreneurs and (b) Why some people want to work for someone else. However, an extensive survey of literature did not produce any study that directly dealt with any specific family reasons for not starting a new business. While there are many studies that concluded that the lack of capital prevented people from becoming entrepreneurs. But, they did not argue that it was the family's responsibility to provide such capital.

Based on a study of students at the University of Cordoba (Spain), Cañizares and García's (2010) suggest, among other things, that women are less prone to initiate entrepreneurial activity and that fear of failure is a major obstacle to setting up a company.

Ekore, and Okekeocha (2012) examined the role of psychological factors, especially fear of failure as an entrepreneur, among university graduates in Nigeria. Their findings confirmed core self-evaluation as influencing fear of entrepreneurship. Also, pre-entrepreneurial intention, attitude, and capacity significantly predicted fear of entrepreneurship.

Farsi, Arabiun, and Moradi (2012) present a study of entrepreneurial intentions among 56 nursing students in Zanjan Azad University. Their study found very low effect of entrepreneurial training program (ETP) on entrepreneurial intentions of nursing students. This might be due to factors such as greater chance of nursing students to be employed after graduation.

Kristiansen and Indarti (2004) conducted a study of Indonesian and Norwegian students. They found that the individual perceptions of self-efficacy and instrumental readiness are the variables that affect entrepreneurial intention most significantly. Age, gender and educational background have no statistically significant impact. Generally, the level of entrepreneurial intention is higher among Indonesian students. The lower level of entrepreneurial intention among Norwegian students is explained by the social status and economic remuneration of entrepreneurs in comparison with those enjoyed by employees in the Norwegian context.

Tkachev and Kolvereid (1999) investigated employment status choice intentions, defined as the decision to enter an occupation as a waged or salaried individual as opposed to a self-employed one. Hypotheses based on tracking models and the theory of planned behavior was tested on a sample of 512 Russian students from three different universities in St. Petersburg. The results showed that the theory of planned behavior, not tracking models or demographics, determined employment status choice intentions.

SUGGESTIONS FOR FUTURE RESEARCH

There is need for “simultaneous research” in the following areas of students’ intention to become entrepreneurs:

1. Why students intend to become entrepreneurs; why they want to work for someone else, instead?
2. What family reasons discourage students to intend to become entrepreneurs, such as lack of mutual love and trust in the family; although the family has financial resources?

Exhibit 1: List of Questions

Related to Students’ Gender, Class Year, Intention, and Rating of Family Reasons; As Presented in the Research Questionnaire (With their Original Question Numbers)

Q. 1: Sex (check one): (a) Male _____ (b) Female _____

Q. 9: What is your current year of education (check one):

- (a) 1st year of undergraduate study _____; (b) 2nd year of undergraduate study _____;
 (c) 3rd year of undergraduate study _____; (d) 4th year of undergraduate study _____;
 (e) 1st year of graduate study _____; (f) 2nd year of graduate study _____

Q. 15: After you have finished your education (whether you have attained a degree or not), what do you intend to do (check one):

- a. Start my own business _____;
 b. Work for a business owned by an immediate family member (spouse, parent, brother and/or sister) _____;
 c. Work for someone else _____

Q. 16, 17, and 18: Students’ Rating of the Family Reasons as Unimportant or Important for their intention for starting their business.

Table 1

	Un-important (a)	Important (somewhat) (b)	Important (average) (c)	Important (above average) (d)	Very Important (e)
<u>Family Reasons for starting a Business</u>					
16. Family tradition	_____	_____	_____	_____	_____
17. Family encouragement	_____	_____	_____	_____	_____
18. Family can provide monetary support	_____	_____	_____	_____	_____

Exhibit 2: Summary of Null Hypotheses Testing and Decisions

Relationship between Students' rating of the "Family tradition" as important and unimportant (Q16) and their intention to start their own business (Q 15ab); Broken down by totals and gender

Table 2

Null Hypothesis	Total No. of Respondents	Respondents who want to be Entrepreneurs	χ^2 Calculated Value	χ^2 Critical Value	Degree of Freedom, $\alpha=.05$	Decision on Null Hypothesis
Null Hypothesis : There is no relationship between Students' rating of the "Family tradition" as important or unimportant (Q 16) and their Intention to start their own business (Q15ab) (Total of all)	184	117	0.7496	3.8410	1	Accept
Null Hypothesis : There is no relationship between Students' rating of the "Family tradition" as important or unimportant (Q 16) and their Intention to start their own business (Q15ab) (Total of all Males)	112	73	0.2255	3.8410	1	Accept
Null Hypothesis : There is no relationship between Students' rating of the "Family tradition" as important or unimportant (Q 16) and their Intention to start their own business (Q15ab) (Total of all Females)	72	44	0.6649	3.8410	1	Accept

Exhibit 3: Summary of Null Hypotheses Testing and Decisions

Relationship between Students' rating of the "Family encouragement" as important and unimportant (Q17) and their intention to start their own business (Q 15ab); Broken down by totals and gender

Table 3

Null Hypothesis	Total No. of Respondents	Respondents who want to be Entrepreneurs	X² Calculated Value	X² Critical Value	Degree of Freedom, $\alpha=.05$	Decision on Null Hypothesis
Null Hypothesis : There is no relationship between Students' rating of the "Family encouragement" as important or unimportant (Q 17) and their Intention to start their own business (Q15ab) (Total of all)	187	120	0.7496	3.8410	1	Accept
Null Hypothesis : There is no relationship between Students' rating of the "Family encouragement" as important or unimportant (Q 17) and their Intention to start their own business (Q15ab) (Total of all Males)	112	73	0.0082	3.8410	1	Accept
Null Hypothesis : There is no relationship between Students' rating of the "Family encouragement" as important or unimportant (Q 17) and their Intention to start their own business (Q15ab) (Total of all Females)	75	47	0.0272	3.8410	1	Accept

Exhibit 4: Summary of Null Hypotheses Testing and Decisions

Relationship between Students' rating of the "Family can provide monetary support" as important and unimportant (Q18); and their intention to start their own business (Q 15ab); Broken down by totals and gender

Table 4

Null Hypothesis	Total No. of Respondents	Respondents who want to be Entrepreneurs	χ^2 Calculated Value	χ^2 Critical Value	Degree of Freedom, $\alpha=.01$	Decision on Null Hypothesis
Null Hypothesis : There is no relationship between Students' rating of the "Family can provide monetary support" as important or unimportant (Q 18) and their Intention to start their own business (Q15ab) (Total of all)	184	117	0.4866	3.8410	1	Accept
Null Hypothesis : There is no relationship between Students' rating of the "Family can provide monetary support" as important or unimportant (Q 18) and their Intention to start their own business (Q15ab) (Total of all Males)	112	73	1.2509	3.8410	1	Accept
Null Hypothesis : There is no relationship between Students' rating of the "Family can provide monetary support" as important or unimportant (Q 18) and their Intention to start their own business (Q15ab) (Total of all Females)	72	44	0.0636	3.8410	1	Accept

Exhibit 5: Summary of Null Hypotheses Testing and Decisions

Relationship between Student's rating of the "Family tradition" as important and unimportant (Q16) and their intention to work for someone else (Q 15c); Broken down by totals and gender

Table 5

Null Hypothesis	Total No. of Respondents	Respondents who want to be Entrepreneurs	χ^2 Calculated Value	χ^2 Critical Value	Degree of Freedom, $\alpha=.05$	Decision on Null Hypothesis
Null Hypothesis : There is no relationship between Students' rating of the "Family tradition" as important or unimportant (Q 16) and their Intention to work for someone else (Q15c) (Total of all)	184	67	1.3090	3.8410	1	Accept

Null Hypothesis : There is no relationship between Students' rating of the "Family tradition" as important or unimportant (Q 16) and their Intention to work for someone else (Q15c) (Total of all Males)	112	39	0.4221	3.8410	1	Accept
Null Hypothesis : There is no relationship between Students' rating of the "Family tradition" as important or unimportant (Q 16) and their Intention to work for someone else (Q15c) (Total of all Females)	72	28	1.0449	3.8410	1	Accept

Exhibit 6: Summary of Null Hypotheses Testing and Decisions

Relationship between Student's rating of the "Family encouragement" as important and unimportant (Q17) and their intention to work for someone else (Q 15c); Broken down by totals and gender

Table 6

Null Hypothesis	Total No. of Respondents	Respondents who want to be Entrepreneurs	χ^2 Calculated Value	χ^2 Critical Value	Degree of Freedom, $\alpha=.05$	Decision on Null Hypothesis
Null Hypothesis : There is no relationship between Students' rating of the "Family encouragement" as important or unimportant (Q 17) and their Intention to work for someone else (Q15c) (Total of all)	187	67	0.0539	3.8410	1	Accept
Null Hypothesis : There is no relationship between Students' rating of the "Family encouragement" as important or unimportant (Q 17) and their Intention to work for someone else (Q15c) (Total of all Males)	112	39	0.0154	3.8410	1	Accept
Null Hypothesis : There is no relationship between Students' rating of the "Family encouragement" as important or unimportant (Q 17) and their Intention to work for someone else (Q15c) (Total of all Females)	75	28	0.0456	3.8410	1	Accept

Exhibit 7: Summary of Null Hypotheses Testing and Decisions

Relationship between Student's rating of the "Family can provide monetary support" as important and unimportant (Q18) and their intention to work for someone else (Q 15c); Broken down by totals and gender

Table 7

Null Hypothesis	Total No. of Respondents	Respondents who want to be Entrepreneurs	X ² Calculated Value	X ² Critical Value	Degree of Freedom, $\alpha=.01$	Decision on Null Hypothesis
Null Hypothesis : There is no relationship between Students' rating of the "Family can provide monetary support" as important or unimportant (Q 18) and their Intention to work for someone else (Q15c) (Total of all)	184	67	0.8497	3.8410	1	Accept
Null Hypothesis : There is no relationship between Students' rating of the "Family can provide monetary support" as important or unimportant (Q 18) and their Intention to work for someone else (Q15c) (Total of all Males)	112	39	2.3415	3.8410	1	Accept
Null Hypothesis : There is no relationship between Students' rating of the "Family can provide monetary support" as important or unimportant (Q 18) and their Intention to work for someone else (Q15c) (Total of all Females)	72	28	0.0999	3.8410	1	Accept

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WHERE'S WALDO? THE SEARCH FOR ENTREPRENEURIAL ROLE MODELS

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ABSTRACT

Entrepreneurship is a critical component for growth in the US economy. Exposing college students to the field, while they are finalizing their career aspirations, helps students turn vague intentions of starting businesses into realities. Based on inquiries at three college campuses we found students to be largely unaware of the entrepreneurs in their own campuses and communities. We posit that this is based on a lack of realistic, rather than aspirational, role models and the need to broaden how entrepreneurship is presented both in and out of the classroom. We offer suggestions for both curriculum and community efforts.

INTRODUCTION

Waldo, a seemingly ageless man with neutral features and atypical fashion sense, is the focal character in a series of children's books by British illustrator Martin Handford. The pages of the books depict dozens of colorful characters and landscapes. Readers are given the challenge of finding Waldo in his signature red and white striped shirt and round glasses amidst crowds and lush backgrounds. Waldo is both iconic and elusive. He isn't hiding; in fact, he's in plain sight. However, to find him you have to be willing to pause for a moment, look closely, and see the details. Many of us began our search for Waldo in 1986 and can continue the hunt even today as Waldo recently celebrated his 25th anniversary with a new book for new and old readers to experience where he is now.

We use Waldo, fashion sense notwithstanding, as a metaphor for the everyday entrepreneur. Entrepreneurs are ubiquitous, yet they can be difficult to find by virtue of blending into the general business landscape. Unlike Waldo, they do not have a signature ensemble, which means those hoping to find them amongst the crowd will need different criteria for their search. Although many individuals at different stages of life may profit from locating entrepreneurs, we focus on two groups: college students and college professors. We feel these groups would benefit most from being able to recognize and find the everyday entrepreneur rather than possess awareness solely of high profile entrepreneurial success stories. In the following sections, we focus on these groups individually to better assess their needs and subsequently offer prescriptive recommendations for locating this latest incarnation of Waldo.

THE PROBLEM AMONGST STUDENTS: A LACK OF AWARENESS

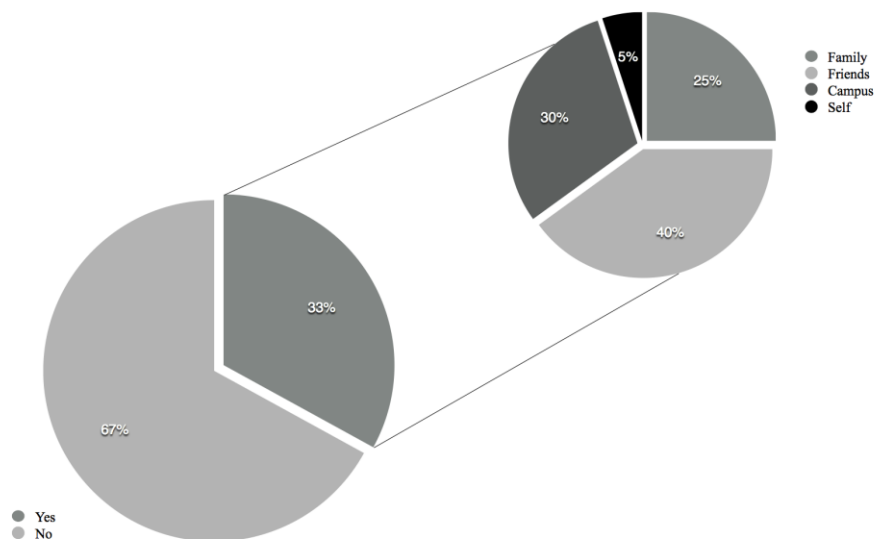
We begin our quest to aid in the search for entrepreneurial Waldo by starting with college students. Research suggests that nearly 75% of college students report they have thought, at least vaguely, of starting their own businesses, but only 17% envision careers in their own businesses (Shinnar, Pruett, & Toney, 2009); These numbers increase to 76% and 35%, respectively, when business majors are examined in isolation. The disparity between vague intention and reality is vast and of concern given the importance of entrepreneurship to our economy and level of

innovation. Nearly all, new, net job growth in the US is attributable to business startups, which demonstrate striking resilience even during recessions (Haltiwanger, Jarmin, & Javier, 2013). Small businesses have added nearly 40 million jobs to the US economy over the last 30 years (Pitman, 2013). In addition to the direct effects of small firms, entrepreneurship stimulates innovation in large, established firms thus increasing our national competitiveness (Kuckertz, 2013), making it important to continually grow entrepreneurs.

If college is where students form career aspirations (Blau & Snell, 2013), they need to be aware of entrepreneurship as a career option. Although not all college students will, or should, become entrepreneurs during their lifetimes, entrepreneurship will likely affect them and vice versa, whether it is through their relationships as suppliers, customers, or constituents (Bassi, Morton, & Williams, 2011). Exposing college students to entrepreneurship, if only through an awareness of entrepreneurship around them, are an important building block to their careers and society as a whole. As such, college is arguably a viable place to plant the seed of entrepreneurial intentions and to see if any have taken root.

Students on three college campuses in the Pacific Northwest ($n=305$) were asked one simple, direct question: Do you know any entrepreneurs? The response: 67% said no. For the 33% percent that did know an entrepreneur, a second question was asked: Who are they? For many, family was the most likely source at 40%, whereas classifying themselves was the least likely at 5%. See Figure 1 for a graphical presentation of responses.

Figure 1
DO YOU KNOW AN ENTREPRENEUR? IF SO, WHO?



In terms of the demographics driving the sample, the three schools were of similar size (avg = 3,271), with two being private universities and the remaining one public. The response rate between the schools also was of statistically similar sizes. In turn, almost all of the respondents (98%), regardless of university, classified themselves as full-time students with representation equally split between the classes (i.e., freshman, sophomores, juniors, and seniors). Lastly, the majority of responses (83%) were in the age bracket of 18-22, 9% were in the 23-29 age range, and the remaining 8% were 30 years or older.

On the surface, a negative response of 67% seems high. One explanation is that these students aren't very entrepreneurial and/or interested in entrepreneurship. Although plausible, each campus polled has some form of entrepreneurship activities available to students, be it a business plan competition, a formal course, a club, or other undertaking. Moreover, statistically significant differences were not found to exist between respondents by campus. In terms of national estimates, surveys by the Global Entrepreneurship Monitor state that entrepreneurial intentions doubled in 2009 during the recession and total entrepreneurial activity in 2012 was at 13%, the highest recorded level in the US since the survey's beginning in 1999 (Global Entrepreneurship Monitor, 2013).

A second explanation is that this sample is highly atypical with regard to how many people college students know on some relational level. College students, on average, have 587 Facebook friends and even if all these "friends" are not highly developed relationships, research suggests that students and non-students alike know even more people than those they are connected to on social media (Thompson & Loughheed, 2012). This suggests that the number of individuals an average college student knows, at least in passing, may very well exceed 600.

Perhaps, there is a third option. In public opinion research, how a question is framed matters. It is possible that the results instead suggest that students are not aware of the entrepreneurs around them. Let's consider Waldo for a moment. What if he was called something else? In the US and Canada his name is Waldo. In the UK it's Wally. He's known as Walter in Germany, Charlie in France, and Vallu in Finland. There is something to a name. The word entrepreneur tends to bring a specific image to mind. For many, it's the gods of tech start-ups; guys in jeans with hoodies underneath their blazers. It's people with an above-average tolerance for risk. It's business, engineering, or computer science majors. The title of entrepreneur often is reserved for big names, such as Jobs and Zuckerberg.

This presentation of entrepreneurs is reinforced in both popular media and current events. HBO's new show *Silicon Valley* reinforces this message in its first episode with an eccentric billionaire offering \$100,000 to anyone who drops out of college in order to bring an innovative idea to life. The character (Peter Gregory) calls college a cruel and expensive joke on the poor and the middle class while citing that Jobs and other tech giants either never attended college or dropped out before completion. This television portrayal mimics current events in that Peter Thiel, PayPal co-founder, via the Thiel Foundation recently offered 24 students (under the age of 20) \$100,000 in grant money and mentorship to start a tech company in exchange for dropping out of school (Miller, 2011).

In contrast, there's the title of small business owner. Despite both founding businesses and many being small in size by economic definition of employee numbers, entrepreneurs and small business owners have been painted to be at opposite ends of the spectrum. Many definitions play up the grand vision and problem solving capabilities of the entrepreneur, the same skills all business owners need for survival—and success. Yes, the title of small business owner remains unglamorous at best and undesirable at worst. The term small business owner often conjures up images of shops and stores about to be taken over by the large conglomerate: The going out of business signs thanking customers for 10+ years that can be seen in many small towns. The words small business owner is not synonymous with modern technology, large profits, or sleek offices.

Thus perhaps it is time the titles of entrepreneur and small business owner got a combined makeover. In their book title *Rework* authors Fried and Hansson (2010) suggest the term starters. It's not as mysterious as being an entrepreneur, as but more exciting than small

business owner. It is easier and shorter to spell. And, perhaps, those are all good things. Starters suggest action. Our advice to students is to stop viewing entrepreneurship as an exclusive club that only certain types of people can be involved and instead see it as an opportunity to start something; make something; do something. It can be something as small as a YouTube video to as large as a organizing a community event. It doesn't mean dropping out of school, quitting a steady job, or revolutionizing the world – unless you want it to. It means doing something you are interested in that can turn into something others will pay for.

In light of these three potential explanations, we posit that entrepreneurship does exist on these college campuses, but that the students have not been adequately exposed to the full extent of what entrepreneurship can entail and who can be classified as an entrepreneur. Thus we offer two propositions:

- P1 Increasing students' exposure to relevant role models will increase their awareness of entrepreneurs, particularly in their local area, and entrepreneurship in general.*
- P2 An increase in students' awareness of entrepreneurship will lead to an increase in entrepreneurship as a potential career path.*

PAINTING A BETTER PICTURE: PRESENTING ENTREPRENEURSHIP TO COLLEGE STUDENTS

College graduates are more successful in entrepreneurial pursuits than non-college students (Van der Sluis, Van Praag, & Vijverberg, 2008), so, societally, it behooves us to expose college students to the subject, as well as educate them about entrepreneurial thinking. Working under the hypothesis that students may not have a complete picture of what entrepreneurship can entail, college professors are at the forefront for changing student perceptions as they have the most direct access to students on a consistent basis. Thus it is suggested that how businesses get started and who starts them can directly be influenced by how entrepreneurship is presented in the classroom. Most educators' and practitioners' view of entrepreneurship has evolved from the perspective that entrepreneurs are (solely) born rather than developed. Drucker (1985) comments that the "entrepreneurial mystique" is not magic, mysterious or genetic, but that it's a discipline that can be learned. For entrepreneurship, the question has now changed from "Can this be taught?" to "How should it be taught?" (Kuratko, 2005).

In that vein, entrepreneurship education has grown exponentially: from 250 courses in 1985 to more than 5,000 today (Ewing Marion Kaufmann Foundation, 2013); this includes degree and certificate programs as well as campus-wide efforts. Entrepreneurship is present in higher education curricula in specific ways (e.g., a major in entrepreneurship), as part of general education in cross-disciplinary efforts, or as part of non-business disciplines (e.g., information technology). Current research suggests two directions for entrepreneurship education: 1) educating better entrepreneurs and 2) improving attitudes towards entrepreneurship (Kuckertz, 2013; Fretschner & Weber, 2013).

The first, educating better entrepreneurs, focuses on teaching skills and competencies that would help a person who is already attracted to an entrepreneurial career. This includes, but is not limited to, creating a marketing plan, developing pro forma budgets, and perfecting an elevator pitch. However, where work is needed is on the latter path, improving entrepreneurial attitudes. Efforts in this direction involve focusing on individuals without an innate interest in or awareness of the topic. To encourage such individuals, this path focuses on developing

entrepreneurial characteristics, showing different aspects of entrepreneurship in varying environments, and applied project-based learning (Kuckertz, 2013). It focuses on individuals such as Jeff ... a 21-year-old junior, majoring in English. When asked who he knows who is an entrepreneur, he reports that his Uncle Jim is building an app with his friends after work hours, his neighbor at home runs her own accounting firm, his freshman roommate's mom owns a bakery, and he saw a poster about a student he knew who graduated last year who is now starting some sort of tech startup, but he's fuzzy on the details aside from the fact she was a business major he met at a party. He doesn't know any others. He's also not interested in entrepreneurship. How could he be an entrepreneur, he asks, he's an English major after all.

Despite media stories that publicize tech startups, the technology sector makes up a small part of where many new businesses are started. Instead, many new business owners choose retail or service industries – areas with numerous competitors and high failure rates. Typically people open businesses in industries they have prior experience in, such as chefs opening restaurants or hairdressers opening their own salons. Education can play a pivotal role in helping individuals choose more profitable and/or better-suited sectors for new businesses by focusing on customer needs and the role of competition.

By first understanding what entrepreneurship is and what it can entail, academics and practitioners alike have become quite knowledgeable and skilled at teaching entrepreneurial know-how to students interested in the subject (Kuckertz, 2013), but seemingly lack skill in reaching those without an innate interest in or awareness of the topic. We suggest that raising awareness via role models is a solid starting ground. Using the data as a starting point, students reported knowing less than one entrepreneur on campus. Given that a university campus provides a captive audience and, for this study, an average campus size of 3,271 students suggests that there should be almost 500 student entrepreneurs on each campus (15% of students on these campuses self-reported as entrepreneurs. 15% of 3,271 equals 490.65 student entrepreneurs). Thus promoting student entrepreneurs as potential role models and bringing entrepreneurs to campus may be promising first steps towards increasing overall awareness.

PUTTING THE ROLE IN ROLE MODEL

Theories of career development underscore the importance of role models. Role models provide context and vicarious learning that directly affect and influence career choice (Lent et al., 1994). Empirical research has found links between role models and career: maturity (Flouri & Buchanan, 2002), aspirations (Nauta, Epperson, & Kahn, 1998), choice (DeSantis & Quimby, 2004), salience, and attitudes toward nontraditional careers (Nauta & Kokaly, 2001), with the effectiveness of role models holding when other moderating factors are controlled. Role models also have been shown to positively influence self-efficacy (Bandura, 1999, 2000), which leads to higher entrepreneurial intentions (Chen, Green, & Crick, 1998). Prior research thus lends support to the case for role models; however, for entrepreneurship in particular, the type of role model may be of even greater importance.

Krueger and Brazeal (1994) found that non-credible role models actually reduce self-efficacy, which lowers potential entrepreneurs' intentions to start businesses. As a result, role models students can directly relate to are far more likely to influence career decisions (Kuckertz, 2013). For example, recent graduates are more salient role models than graduates from 15 years ago. Providing a variety of role models in terms of gender, ethnic backgrounds, and personal resource bases also increase salience. To be effective in increasing entrepreneurial intentions, the role models must affect attitudes, increasing both perceived desirability and feasibility (Krueger,

1993). In entrepreneurship in particular this suggests decreasing the emphasis on overly successful entrepreneurs who are too far away from the average students' experience to have a direct, rather than aspirational, influence (Kuckertz, 2013). If the focus is only on examples of famous entrepreneurs, prospective student entrepreneurs often do not perceive such accomplishments as personally feasible. A sole focus on the aspirational may discourage the most promising students from exploring entrepreneurship more deeply and miss the opportunity to use resources that are readily accessible on campuses.

While high-growth, successful entrepreneurs are worthy of celebration, the everyday entrepreneurs are important to building students' entrepreneurial intentions because of the contagiousness of entrepreneurship and self-efficacy (Kuckertz, 2013; Casson, 1995). A recent study by the Kauffman Foundation (2013) suggests that entrepreneurship may be contagious in that knowing entrepreneurs will increase the odds that you yourself will be (or are) an entrepreneur. That said, entrepreneurship might be harder to "catch" if you are female. In the Kauffman Foundation's (2013) sample ($n = 2,000$), men were more likely to know entrepreneurs than women. This difference worsened when entrepreneur type was taken into account, with women even less likely to know entrepreneurs in high-growth businesses. Our inquiry mimicked these results in that individuals who self-identified as entrepreneurs knew significantly more entrepreneurs, with this result holding regardless of categorization (i.e., among friends, acquaintances, family members, on campus, etc.). In turn, 23% of the males in our sample identified themselves as entrepreneurs vs. only 10% of the female respondents. Women also reported knowing fewer entrepreneurs, despite the total sample being somewhat biased towards female respondents. Thus, finding realistic role models may be even more important for female students to view entrepreneurship as a career path that they too can attain.

STEPS IN THE RIGHT DIRECTION: CURRICULUM AND BEYOND

If the goal is to increase entrepreneurial skills, a skills-based approach to education through the curriculum, particularly in business schools, can be effective for those already predisposed to entrepreneurial careers. However, we suggest the primary goal should be to increase entrepreneurial awareness among those who know little about entrepreneurship or do not think it is an option for them. And to do so, it is essential to both adjust and broaden the definition of what defines entrepreneurship and who can be one.

In, Yet Out, of the Classroom

One common area of concern for those considering starting a business is capital. One way to assuage those fears is by providing a small startup loan. Microfinancing has existed in various forms since the mid-1700s. The process involves giving very small loan amounts to those with no, or very poor, credit history at lower interest rates than alternative credit sources. The process also relies on other mechanisms, such as social embeddedness to ensure repayment. It gained widespread recognition when the Grameen Bank, a Bangladesh community bank, and its co-founder Muhammad Yunus jointly won the Nobel Peace Prize in 1998. Since then microloans have been brought into the mainstream by companies such as Kiva, a nonprofit organization that lets individuals take loans out for as little as \$25 to help businesses get off the ground, and, in turn, eliminate poverty in areas where access to traditional financing are limited.

Microloans also have slowly started to take root in the US via companies such as Grameen America. Yunus felt that the same principles used at Grameen Bank in Bangladesh

could be used to help America's urban poor. Grameen America specifically focuses on women in households below the poverty line. Its programs work to help establish credit and increase household income, with a maximum first-time loan award amount of \$1,500 put into a no-fee savings account.

Although the worth of such programs should not be undervalued, the process of climbing out of poverty is not quick or easy; it will likely take a generation to fully see results. In that spirit, One Hen Inc. focuses its efforts on children. This non-profit provides educational resources for 3rd thru 7th grade to encourage social entrepreneurship in children by teaching them 4 concepts: personal initiative, financial literacy, global awareness, and giving back.

At the college level, micro lending can occur in the classroom by giving students small loans and then requiring them to start businesses, from three-day ventures to term-long endeavors. Professors have the flexibility to require capital repayment regardless of financial outcomes, as a percentage of total sales, or to view the outlay as a grant rather than a loan. In a 10-week quarter at the University of Oregon a team of 4 students started a yard maintenance company with a \$100 loan from the business school. The team repaid their \$100 startup capital and earned an additional \$500 during the term. The student who led the team continued the business for the next 3 years to pay for his undergraduate and graduate education (Claire, 2009).

Likewise, Peterson and Albertson (2006) describe an 8-week version of the exercise, which has been successfully duplicated at other institutions over varying time frames. In this variation each student received a \$20 microloan and was given the opportunity to combine funds with other students. Tracking students over 4 years, the students realized a 390% return on investment while simultaneously donating 20% of their gross profits to charity. At the individual level, profits ranged from -\$16 to \$465, with a 100% loan repayment rate. Here, entrepreneurial endeavors ranged from dog walking and selling baked goods to music and sports lessons, cleaning services, and t-shirt sales. Students reported feeling everything, from fear to excitement, as well as gaining self-efficacy and appreciation for having the opportunity to make mistakes on a small scale. More importantly, most students reported that the exercise was influential in helping them understand entrepreneurship and discern whether this was an appropriate career path for them.

If finding the resources to fund in-class microloans is out of reach, another means to broaden the view of entrepreneurship is to send students out into the streets – literally. With this method students are asked to find a local entrepreneur (a Waldo of their own) to job shadow and create a short documentary about him or her. The students are not given a list of entrepreneurs to choose from and instead must apply class lessons to identify entrepreneurs. At times, the star of the film is equally surprised as he or she often identifies primarily with the craft or area of expertise, rather than the more general title of entrepreneur. The primary grading criterion of the assignment is if the film demonstrates that the focal person is an entrepreneur. The films are shown in a public setting, with invitations extended to those outside of just the classroom (see examples in the archive at <http://soundideas.pugetsound.edu/entrepreneurshipfilmfestival/>). Students report this project to be an effective means to more deeply understand who an entrepreneur is as well as gain awareness through identification and experiential learning, which links to the concept of deep learning (Cooper & Lucas, 2006; Kreber, 2001).

Deep learning is a teaching approach by which students are asked to extract meaning and build understanding by a combination of course material and experiences rather than a surface or rote understanding of general concepts (Cooper & Lucas, 2006). Documentaries help facilitate such an understanding by allowing students to vicariously experience entrepreneurship through

job shadowing and then relive the experience in the editing and storytelling processes. The written reflections required seek to further aid in processing the experience via a sense-making approach and considering, without negative consequences, if the experience is the right fit for them. One student's final reflection highlights this by noting that, "... there is no 'entrepreneurial profile.' All entrepreneurs are different and they all have different personalities. Also, entrepreneurs can be any age. The other important lesson I learned is that there are entrepreneurial opportunities in all professions" (Claire, 2009, p. 360).

Lastly, and perhaps the most common mechanism for sparking interest is forming a club and hosting guest speakers. Entrepreneurship club members plan and participate in activities related to new venture creation that range from meetings where students simply sit and talk to BuyCotts where students patronize a local entrepreneurial business en masse to pitch nights where students pitch new venture ideas for feedback. While under-studied as a phenomenon, clubs have been found to raise "awareness, aspirations and knowledge about entrepreneurial activity" by connecting students with entrepreneurs, among other important outcomes (Pittaway et al., 2010, p. 40).

In turn, opening up classroom and club events that feature guest speakers to the university, or even the community at large, raises awareness beyond a single department and can serve as a tool for building a database of local entrepreneurs. Consider the success of the 1 Million Cups Program. The name is derived from the numerous cups of coffee poured and drank on Wednesday mornings while two early-stage startups present their pitch for 6 minutes, followed by 20 minutes of audience Q&A, and end with founder feedback via audience survey and local organizers. The weekly event is an experiential learning opportunity for all involved (see www.1millioncups.com for more details and availability in your city).

When bringing guest speakers into your own classroom, consider both the demographics and psychographics of your students. If your class is mostly men in their 50s, reaching out to your school's business advisory committee for referrals may be an excellent starting point. If your class has great diversity, you will need to get more creative. One starting point would be to contact your local alumni office to identify individuals who have started ventures within the last 10 years. Another path would be to see if your local business press or Chamber of Commerce selects an annual 40 under 40 and contact those who are undertaking or supportive of entrepreneurship. Lastly, you may also want to keep in mind the family backgrounds, work histories, and sexual orientations of your students in order for guest speakers to be salient and resonate with your class. It is important to realize that relatable role models may accomplish the goals of increasing self-efficacy better than the very successful entrepreneurs many of us often seek to bring into our classrooms (Casson, 1995; Krueger and Brazeal, 1994; Kuckertz, 2013).

Finding a Larger Audience On and Off Campus via Competitions

Business plan competitions are a staple of entrepreneurship centers and most competitions are designed to appeal to a variety of majors (Russell, Atchison & Brooks, 2008). Typically the goal of these competitions is to foster local ventures (Friar & Meyer, 2003). Broadening the focus of the competition beyond purely financial outcomes may increase the relevance of the competition to many students, such as those from the arts or social sciences. Entrepreneurial competitions that focus on social and environmental entrepreneurship have proven more popular to broad audiences than the traditional model, which suggests that one way to expand interest and exposure beyond tech startups is to create categories and awards for plans

that solve environmental, social, or specific community problems (Souitaris, Zerbinati, & Al-Laham, 2007).

Business plan competitions are increasingly emerging at the community level. Russell et al. (2008) remind us that, “business plan competitions around the world have been established to provide a stimulus for new venture creation and for capturing the ideas, talents and potential in the community” (p.124). In the US, nine states report statewide business plan competitions, with only two of these competitions launched before 2005 (Hurley, 2010). In addition to helping the best new ventures gain support, the competitions highlight the exciting ideas and efforts in a given locale, one of the important building blocks of an entrepreneurially healthy region (National Commission on Entrepreneurship, 2000).

According to the National Commission on Entrepreneurship’s 2000 study, entrepreneurially healthy regions share five key qualities: 1) diversity in sources of capital; 2) supportive infrastructure; 3) an entrepreneur-friendly government; 4) an enabling culture; and 5) strong local networks. The last three qualities relate strongly to raising awareness of entrepreneurship by politicians, entrepreneurs who have come before, and with each other. The effects of a strong local entrepreneurial culture will have positive effects for both students on college campuses and the local community. Thus, raising awareness of the entrepreneurs around all of us is a multi-dimensional process that will draw on resources from both the ivy halls and our business communities.

One such example is the University of Texas at El Paso (UTEP), which recently received funding to collect and codify the oral histories of prominent first-generation Hispanic entrepreneurs in their region. Students were trained in gathering oral histories by the university’s Institute of Oral History. The stories are being used as part of the UTEP curriculum and are available online (<https://academics.utep.edu/Default.aspx?tabid=20000>). UTEP was not limited by academic boundaries as the *El Paso Times* featured one of the 36 entrepreneurs each Sunday. The Smithsonian Institution is featuring this collection as part of its new permanent “American Enterprise” exhibition at the American History Museum in early July of 2015 (Torrance, 2013). This project will raise awareness of these entrepreneurs at a scope far beyond the local level.

CONCLUSIONS AND IMPLICATIONS: GETTING BACK TO BUSINESS

One key factor in encouraging entrepreneurship is making sure individuals are aware of the entrepreneurs around them, and the results of this inquiry suggest that students are decidedly unaware of their local entrepreneurial community. This lack of awareness has meaning, particularly for college students, because of the vital function credible role models have in the process of forming career aspirations. As such, this paper and initial tri-campus inquiry are but a first step towards students and educators working together to increase awareness of entrepreneurial activity so that more individuals can find Waldo. This means there is work to be done on both sides of the equation.

Starting with students, they must be willing to see entrepreneurship in a new light – one that is not exclusive to tech start-ups and business students. They must be willing to look for Waldo in unconventional places. For educators, they must champion this change and promote a new vision of who Waldo is and where he (or she) can be found. If educators can interest students in entrepreneurship in college, they are more likely to take advantage of both curricular and co-curricular opportunities to learn about entrepreneurship, thus empowering them not only to more deeply consider starting businesses of their own, but also to be supportive of local businesses in the future. Professors should work to design assignments to help students uncover

nearby and relatable entrepreneurial role models. Moreover, educators must seek to highlight and celebrate local entrepreneurial efforts, rather than focusing on “imported” entrepreneurs. We must not buy in to the philosophy that someone is an expert solely because they have flown into a city.

Local business owners, particularly those in small businesses, need to equally embrace the title of entrepreneur and the responsibilities that come with the title. This includes, but is not limited to, being open to questions from students about the highs and lows of their own experiences and a willingness to share their stories. Such individuals can form the basis of credible role models as well as empower students to not only consider more deeply the possibility of starting businesses of their own, but also to be more supportive of local businesses in the future.

In closing, at no point in recent history has it become more culturally acceptable to become or aspire to be an entrepreneur. Entrepreneurship is portrayed in reality TV shows, such as *Shark Tank*, and crowd sourced funding is openly available on websites, such as *Kickstarter.com*. It is one of the best times to grow and celebrate entrepreneurs – at all levels and sizes of business. And what about Jeff, the English major? He ended up with a career in journalism that led to starting a small magazine. That magazine experienced extraordinary early growth in both readership and advertising, which caught the eye of a large conglomerate that eventually acquired the company. In other words, majors of any field can find themselves on a path to entrepreneurship, or, to put it another way, as Waldo.

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