

Comparing the Entrepreneurial Attitudes of University and Community College Students

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Students (N = 395) at several U.S. community colleges (N = 220) and universities (N = 175) completed the Entrepreneurial Attitudes Orientation (EAO) survey. Results indicated that university students possessed attitudes which were stronger than their community college peers on all four of the entrepreneurial attitudes. Similarly, university students reported that they felt significantly more prepared to start their own businesses, wanted to start their own businesses, and felt they were significantly more likely to start their own businesses than those students from the community colleges. Consideration is given to potential explanations for these differences and implications for entrepreneurship education.

EXECUTIVE SUMMARY

Because attitudes and intentions are precursors of entrepreneurial action, an understanding of the attitudes, and those factors which may impact them, including educational background, is a critical step in promoting greater entrepreneurial initiative among the nascent entrepreneurs in the U.S.

The current study extends our ongoing research paradigm of examining the entrepreneurial attitudes of university students across the U.S. by considering students from two-year college programs and comparing them with students enrolled in business programs at traditional four-year universities. An online survey measuring the entrepreneurial attitudes associated with the Entrepreneurial Attitudes Orientation Scale (EAO) - achievement, innovation, personal control and self esteem, attitudes toward future entrepreneurial employment, and demographic data was used to collect data from university and community college students. Findings indicated that given a group of young adults with similar prior exposure to entrepreneurial enterprises, those studying in four-year institutions are more positively predisposed toward having their own small business in the future. In addition, these students were found

to possess significantly stronger attitudes related to entrepreneurship than did their peers from community colleges.

It has been suggested that entrepreneurship is a blend of temperament, talent, and technique (Thompson, 2004), and research shows that young adults are often interested in business ownership, and those with post-secondary academic experience are more likely to become involved in entrepreneurial activities (Minniti, Bygrave and Autio, 2005). Therefore it is critical that all types of colleges and universities offer relevant entrepreneurship education programs. As research continues to provide a better understanding of students' attitudes and intentions, this knowledge can be used to develop more effective entrepreneurship education programs within both universities and community colleges. It is imperative that nascent entrepreneurs be ready for changing markets, products, and technology in today's business world; education is critical for fostering the flexibility and skills this requires.

INTRODUCTION

Research has shown that entrepreneurship education can impact students' awareness and perceptions (Pittaway & Cope, 2007; Kuratko, 2005), as well as provide them with more complete skill sets (Gatewood, Shaver, Powers & Gartner, 2002; Mitra and Matlay, 2004). Many college-aged young adults are interested in venture creation (Minniti, Bygrave & Autio, 2005), making it especially important to study and refine their entrepreneurial profile since they are likely to be the future entrepreneurial leaders (Hisrich, 2000; Steyaert, 2004). A better understanding of students' attitudes and intentions can be used to develop more effective entrepreneurship education programs. Inadequate business knowledge has been cited as a major deterrent for business ownership (Wang & Wong, 2004) and more relevant education programs can perhaps help fill any identified knowledge gaps or skill deficiencies.

Many of the necessary skills for business creation can be developed in entrepreneurship education and training courses (Mitra & Matlay, 2004), and education and skill differentials help explain why certain individuals choose to pursue entrepreneurial activities and are more successful than others (Farmer, 1997; Carter, Gartner, Shaver & Gatewood, 2003). Florin, Karri and Rossiter (2007) suggest that an important role of business schools is to foster and develop entrepreneurial drive in all students. Reflecting the belief that entrepreneurial skills can be learned and refined, the number of entrepreneurship programs at both two-year and four-year U.S. colleges and universities has been steadily on the rise (Kuratko, 2005).

Entrepreneurship Education

Effective educational programs require the use of multiple learning tools and strategies, often through collaborative efforts. Courses with experiential activities and high faculty involvement allow students to reach their entrepreneurial potential via skill attainment and increased expectations for success. The use of case studies, consulting projects, and/or mentoring opportunities have been particularly successful at impacting students' perceptions of entrepreneurship and their willingness to consider it as a viable career path (Brindley & Ritchie, 2000; Carter, Gartner, Shaver & Gatewood, 2003; Mitra & Matlay, 2004).

Much of the past research on entrepreneurship education has centered on courses and programs from four-year colleges and universities. Pittaway and Cope (2007) suggest that more research is needed in different academic contexts to identify effective methods for teaching entrepreneurship. There is a high variety of post-secondary educational institutions in the U.S., and each of these institutions attracts students for different reasons. A better understanding of all types of college students is needed to develop successful entrepreneurship programs, whether it is for vocational students at local community colleges or graduate students at research universities.

Community colleges have long been praised for their ability to adapt and meet the needs of the surrounding community by offering economic development programs in the areas of small business assistance, workforce training and assessment, and economic planning (Zeiss, 1994; Dougherty & Bakia, 1999). A current need, as suggested by Rosenfeld (2007), is the development of new approaches to teaching entrepreneurship. Research has indicated that community colleges have a "natural aptitude" for entrepreneurship and are well positioned to take advantage of new opportunities (Roueche & Jones, 2005,

p. 27). One of the great challenges is identifying appropriate strategies for dealing with increased demand. This challenge, however, leads to one of the great strengths of community colleges; their ability to adapt and create specialized programs that meet community needs.

This plays into the strengths of the community college and its ability to work collaboratively with various partners, including business and industry, to develop tailored programs aimed at diverse student populations (Roueche & Jones, 2007). The essence of entrepreneurship education is to develop future entrepreneurs capable of launching and maintaining successful businesses, regardless of their academic background. Similarly, Pittaway and Cope (2007) believe that these programs should be designed to enhance students' skills and encourage future enterprise development. The flexible structure and service mission of community colleges make them well suited to design responsive programs that capitalize on the specific needs of their local communities.

Entrepreneurial Attitudes

An attitude is "a complex mental state involving beliefs, feelings, values, and dispositions to act in certain ways" (attitude, n.d.). Attitudes tend to change across time and situations through an interactive process with the environment, and can offer a prediction about a person's future actions (Carlson, 1985). The work of Robinson, Stimpson, Huefner, and Hunt (1991) was one of the first to use an attitudinal scale to predict entrepreneurial activity. They designed the Entrepreneurial Attitude Orientation (EAO) scale to measure entrepreneurial attitudes based on the constructs of achievement, innovation, personal control and self esteem. Achievement in business refers to concrete results associated with the start of a business; personal control of business outcomes concerns one's perception of control or influence over his or her business; innovation in business relates to acting on business activities in novel ways; and perceived self-esteem in business relates to self-confidence with regard to one's business affairs.

The theory of planned behavior argues that intention is an antecedent to behavior (Ajzen, 1991), and prior studies have shown that intentions play a crucial role in understanding the entrepreneurial process (Shapero & Sokol 1982; Krueger, 1993; Krueger & Brazeal, 1994). Shapero and Sokol (1982) argue that attitudes are linked with entrepreneurial intentions, especially in perceived venture feasibility and desirability. Additional research found that positive entrepreneurial exposure can impact intentions (Krueger, 1993), though this may vary according to individual characteristics and situations (Krueger & Brazeal, 1994).

Exposure to Entrepreneurship

Research has established a link between entrepreneurial attitudes and intentions and past business experience and exposure. This may include working for a small business, or more direct experience such as starting a new business or working within a family business. Research has shown that both work experience with a small business (Peterman & Kennedy, 2003) and a family business (Reitan, 1997) can have a positive impact on an individual's perceptions regarding new venture feasibility and desirability. In addition, Gatewood and Shaver (1991) found that self-confidence and motivation can be affected by experience and past business results. All attitudes, including entrepreneurial attitudes, can change (Robinson et al., 1991), and prior work experience or other forms of contact may play a significant role in shaping these attitudes.

Current Study

The purpose of the current study is to compare the entrepreneurial attitudes and intentions of university and community college students. Because one's attitudes are likely to lead to one's intentions, and these, in turn, to behaviors, the current study aims to examine a potential factor associated with entrepreneurial attitudes – the type of post-secondary education undertaken by the young adults who are ostensibly future entrepreneurs. A better understanding of factors that may impact entrepreneurship is necessary to ensure our nation's entrepreneurial spirit continues to flourish.

METHOD

Participants

Participants were students enrolled at both community colleges (2 year institutions) and traditional universities (4 year institutions) in the U.S. A total of 395 useable surveys were returned (220 community college students and 175 university students). Men accounted for 36% of the community college sample and 48% of the university sample. Participants ranged in age from 17 to 61 years old, with the average age of community college students (25.7 years) and university students (24.9 years), not being significantly different from one another.

Procedure

Beginning with the fall 2007 academic year, faculty teaching undergraduate courses received an e-mail letter from the research team requesting their voluntary participation. The stated purpose of the study was to compare differences in entrepreneurial attitudes among students. Faculty was asked to request that their students complete an anonymous online survey during the first few weeks of the semester. Survey completion was entirely voluntary and no identifying information was recorded. A reminder email was sent out after the first week had passed to encourage participation. Data collection continued until the end of the spring 2008 academic term.

Measures

We measured entrepreneurial attitudes with the Entrepreneurial Attitudes Orientation survey instrument (Robinson et al., 1991). The EAO is theoretically well grounded and provides a composite score based on four attitude subscales: 1) Achievement in business (Cronbach's alpha = .84), 2) Personal control of business outcomes (Cronbach's alpha = .70), 3) Innovation in business (Cronbach's alpha = .90), and 4) Self-esteem in business (Cronbach's alpha = .73). The four subscales have been shown to produce 77% accuracy in predicting entrepreneurship (Robinson et al., 1991).

In addition to completing the EAO, participants provided demographic information including gender, age, previous exposure to entrepreneurial organizations, and information related to their future entrepreneurial intentions. Specifically, students indicated on a five point scale how much they desired owning a small business, how likely they were to own a small business, and how prepared they felt to own a small business.

Analyses

Because entrepreneurial attitudes have been shown to be impacted by prior exposure to entrepreneurship, initial chi-square analyses were used to determine if differences existed between community college and university students in this regard so that they might be controlled for.

The primary interest of the current study was to examine what, if any, distinctions exist between the entrepreneurial attitudes of community college and university students. As such, an analysis of variance was conducted to test for differences in the scale scores on each of the four entrepreneurial attitudes of interest as well as the questions related to future entrepreneurial intention.

RESULTS

With regard to prior exposure to entrepreneurial activities, no significant differences were found with regard to having worked for a small business in the past ($\chi^2(1) = 2.22, p > .5$), nor with regard to having exposure via the presence of a family business ($\chi^2(1) = 1.02, p > .5$).

As no significant differences with regard to prior entrepreneurial exposure were found, analysis of variance was undertaken to examine potential differences in entrepreneurial attitudes. As is designated in Table 1, for every entrepreneurial attitude, students from university settings possessed significantly stronger attitudes. Similarly, with regard to future intentions, the university students had more positive predispositions toward future business ownership.

The means and standard deviations for all entrepreneurial attitudes of interest are presented in Table 1.

TABLE 1
MEANS AND STANDARD DEVIATIONS FOR ALL ENTREPRENEURIAL ATTITUDES

Entrepreneurial Attitude	School Type	Mean	Std. Deviation
Achievement Scale Score *	Community College	6.33	1.47
	University	7.40	1.49
Innovation Scale Score *	Community College	3.94	2.29
	University	6.54	2.18
Personal Control Scale Score *	Community College	5.18	2.64
	University	6.51	1.81
Self Esteem Scale Score *	Community College	5.72	1.14
	University	6.36	1.27
Would like to own a small business *	Community College	3.56	1.41
	University	4.15	1.03
Likelihood of owning a small business *	Community College	3.01	1.45
	University	3.50	1.18
Feel prepared to own a small business *	Community College	2.34	1.23
	University	2.89	1.07

* Significantly different at the $p < .05$ level

DISCUSSION AND IMPLICATIONS

In order to survive and flourish, it is imperative that entrepreneurs be ready for changing markets, products, and technology in today's business world. One factor that can be expected to play a role in this is the degree to which young people are well prepared via their previous educational and experiential history.

The current study indicates that given a group of young adults with similar prior exposure to entrepreneurial enterprises, those pursuing an education in four-year institutions are more positively predisposed toward having their own small business in the future. In addition, these students were found to possess significantly stronger attitudes related to entrepreneurship. Since the reason for this discrepancy in attitudinal strength is not obvious, a bit of supposition is offered.

Typically students who choose to pursue an education at a two-year community college do so for one of two reasons. The first is that this is an economical way to earn credits that will later transfer to a four-year institution. As such, the students in this sample who are associated with the community college sample have completed less post-secondary education than those who made up the university sample (who were overwhelmingly in their junior and senior years of education). Perhaps with additional education the attitudes of the community college students will become stronger.

The second reason that students frequently choose a two-year degree over a four-year education is that the two-year program is seen as paving the way to a secure vocation, typically in a high-demand field, in a relatively short amount of time. Individuals seeking such a career may inherently have weaker entrepreneurial attitudes as evidenced by their desire for a career in a stable, existing organization. Although this has been a viable career path for many people, the fact that the greatest amount of growth in the U.S. economy is associated with small business development, suggests that these individuals might be well served by opportunities that expose them to the viability of self-employment.

Based on our results, one might mistakenly presume that university students are more skilled or confident than their community college counterparts. Universities generally have a more strenuous admittance process, whereas many community colleges adopt an open enrollment policy. In addition, past

studies have demonstrated the value of university programs and the positive impact these experiences have on students' entrepreneurial attitudes (Hatten & Ruhland, 1995; Harris, Gibson & Taylor, 2007) and skill development (Gatewood, Shaver, Powers & Gartner, 2002). However, community colleges are known for their willingness to serve diverse student populations and are positioned to directly impact the greatest number of individuals with entrepreneurial aspirations.

Wardford and Flynn (2000) propose that community colleges are best qualified to offer a comprehensive response to the economic needs of local communities. This approach requires the creation of programs aimed at all segments of the workforce, including transitional workers and entrepreneurs. Transitional workers who may be interested in self-employment opportunities, as well as nascent entrepreneurs, often turn to community college programs for specialized assistance, and expect personalized service at little or no cost. Some examples of programs or services offered include degree programs, customized education courses, and business training programs.

Regardless of why students choose a community college education, the students' attitudes toward entrepreneurship highlight a major arena of opportunity for community colleges - these institutions can focus on helping students develop stronger entrepreneurial attitudes. Florin, Karri, and Rossiter (2007) argue that a primary focus of entrepreneurship teaching should be the development of positive attitudes so that students might view starting a small business as a viable career option. Community colleges seem to be well aware of this need and are making greater efforts to educate and support would-be entrepreneurs (Gibbs, 2006).

Rosenfeld (2008) believes that community colleges are in the "midst of a revolution" in identifying new approaches and programs for entrepreneurship (p. 14). Some institutions now offer associate degrees in entrepreneurship and related fields, while others are integrating entrepreneurial skills into various occupational courses. Not only does this make students more employable, but it helps prepare those who may be exploring self-employment opportunities as a second career. Research also encourages community colleges to offer more innovative contract training services and consider the creation of "entrepreneurial 'think tanks'" to benefit the local community (Roueche & Jones, 2005, p. 28).

Perhaps our findings can encourage universities and community colleges to work in a cooperative manner in developing entrepreneurship programs. Universities are better suited to more comprehensive academic programs whereas community colleges are able to develop more tailor made programs for specific industries or professions. Community colleges can create entrepreneurship courses that help those in the process of launching a business, and they can do so either as certificate programs or as part of their continuing education offerings. Large universities typically lack this ability to accommodate the geographic regions they serve and are therefore unable to design programs aimed at the immediate needs of a local community. As suggested by Rosenfeld (2007), community colleges are able to help "entrepreneurs build strong businesses. If the student receives a degree or certificate along the way, that's all the better." (p. 21). Universities are generally not afforded that same level of flexibility.

Research shows that young adults are often interested in business ownership, and those with post-secondary academic experience are more likely to become involved in entrepreneurial activities (Minniti, Bygrave and Autio, 2005). Therefore it is critical that all types of colleges and universities offer relevant entrepreneurship education programs since many of the same young adults will attend these institutions. Thompson (2004) suggests that both talent and temperament are vital for entrepreneurs, and talent can be improved through participation in educational programs. A more thorough understanding of students' attitudes and intentions can be used to better judge whether or not someone has the temperament to be an entrepreneur. Once this has been determined, appropriate entrepreneurship programs can be offered to help students enhance their entrepreneurial skills.

FUTURE RESEARCH

Additional research should continue to examine the entrepreneurial attitudes of students in different academic contexts. In addition, studies should examine the effectiveness of the various entrepreneurship programs found in different educational settings. The prospect of developing a profile that will identify

future entrepreneurs – a model that incorporates the numerous components identified by previous research including personality, entrepreneurial exposure, education, attitudes, and other factors, is certainly exciting to many in entrepreneurship education. Continued efforts to examine would-be entrepreneurs is just one piece of the enigma that is the successful entrepreneur.

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