

**ENTREPRENEURSHIP EDUCATION: EMERGING TRENDS
AND CHALLENGES FOR THE 21ST CENTURY**

**2003 Coleman Foundation White Paper Series
for the U.S. Association of Small Business & Entrepreneurship**

by

DONALD F. KURATKO
The Entrepreneurship Program
College of Business
Ball State University
Muncie, IN 47306
dkuratko@bsu.edu

Rediscovering Enterprise

Perhaps the phenomenon we are witnessing now has less to do with action or risk-taking than with the simple observation that people, not institutions, create economic wealth. In this respect, perhaps the entrepreneur is leading all of corporate America to a rediscovery of business as enterprise, a rediscovery of business as a process limited only by the boundaries of each individual's intelligence, imagination, energy, and daring.

THE FORCE OF ENTREPRENEURSHIP

“Entrepreneurship is a dynamic process of vision, change, and creation. It requires an application of energy and passion towards the creation and implementation of new ideas and creative solutions. Essential ingredients include the willingness to take calculated risks—in terms of time, equity, or career; the ability to formulate an effective venture team; the creative skill to marshal needed resources; and fundamental skill of building solid business plan; and finally, the vision to recognize opportunity where others see chaos, contradiction, and confusion.” (Kuratko & Hodgetts, 2004, p. 30)

Entrepreneurship is more than the mere creation of business. Although that is certainly an important facet, it's not the complete picture. The characteristics of seeking opportunities, taking risks beyond security, and having the tenacity to push an idea through to reality combine into a special perspective that permeates entrepreneurs. An “*entrepreneurial perspective*” can be developed in individuals. This perspective can be exhibited inside or outside an organization, in profit or not-for-profit enterprises, and in business or non-business activities for the purpose of bringing forth creative ideas. Thus, entrepreneurship is an integrated concept that permeates an individual's business in an innovative manner. It is this perspective that has revolutionized the way business is conducted at every level and in every country. *Inc.* magazine reported on the cover of one issue some time ago that “America is once again becoming a nation of risk takers

and the way we do business will never be the same.” So it is. The revolution has begun in an economic sense, and the entrepreneurial perspective is the dominant force!

The past decade has witnessed the powerful emergence of entrepreneurial activity in the United States. Many statistics illustrate this fact. For example, during the past ten years, new business incorporations averaged 600,000 per *year*. Although many of these incorporations may have previously been sole proprietorships or partnerships, the trend still demonstrates the popularity of venture activity, whether it was through start-ups, expansions, or development. More specifically, 807,000 new small firms were established in 1995, an all-time record. Since 1980, Fortune 500 companies have lost more than 5 million jobs, but more than 34 million new jobs have been created. In 1996, small business created 1.6 million new jobs. Fifteen percent of the fastest-growing new firms (that is, “gazelles”) accounted for 94 percent of the net job creation, and less than one-third of these gazelles were involved in high technology. Small businesses (that is, those with fewer than 500 employees) employ 53 percent of the private work force and account for 47 percent of sales and 51 percent of private sector gross domestic product (GDP). Sixteen percent of all U.S. firms have been in existence for less than one year. Sixty-seven percent of all new inventions are created by smaller firms (Reynolds, Hay, and Camp, 1999).

Given these findings, it would seem safe to assume that new firms with employees may number more than 600,000 in a given year, and that another couple of million new business entities—in the form of self-employment—may also come into being each year. Approximately one new firm with employees is established every year for every 300 adults in the United States. As the typical new firm has at least two owners-managers, one of every 150 adults participates in

the founding of a new firm each year. Substantially more—one in 12—are involved in trying to launch a new firm. The net result, then, is that the United States has a very robust level of firm creation. Among the 6 million establishments (single- and multi-site firms) with employees, approximately 600,000 to 800,000 are added each year. That translates into an annual birth rate of 14 to 16 per 100 existing establishments (Reynolds, Hay, and Camp, 2000).

The United States has achieved its highest economic performance during the last ten years by fostering and promoting entrepreneurial activity. According to Kuratko & Hodgetts (2004) the U.S. success has at least three entrepreneurial components. First, large firms that existed in mature industries have adapted, downsized, restructured, and reinvented themselves during the 1990s and are now thriving. Large businesses have adopted and learned and become more entrepreneurial. As large firms have become learner, their sales and profits have increased sharply. For example, General Electric cut its work force by 40 percent, from more than 400,000 20 years ago to fewer than 240,000 workers in 1996, while sales increased fourfold, from less than \$20 billion to nearly \$80 billion over the same period. This goal was accomplished in many cases by returning to the firm's "core competencies" and by contracting out functions formerly done in-house to small firms.

Second, while these large companies have been transforming themselves, new entrepreneurial companies have been blossoming. Twenty years ago, Nucor Steel was a small steel manufacturer with a few hundred employees. It embraced a new technology called thin slab casting, allowing it to thrive while other steel companies were stumbling. Nucor grew to 59,000 employees, with sales of \$3.4 billion and a net income of \$274 million. Newer entrepreneurial companies—some of which did not exist 25 years ago—have collectively created 1.4 million new jobs during the past decade.

Third, thousands of smaller firms have been founded, including many established by women, minorities, and immigrants. These new companies have come from every sector of the economy and every part of the country. Together these small firms make a formidable contribution to the economy, as many firms have hired one or two employees together to create more than 1 million net new jobs during the decade of the 1990s.

In summary, entrepreneurial firms make two indispensable contributions to the U.S. economy. First, they are an integral part of the renewal process that pervades and defines market economies. Entrepreneurial firms play a crucial role in the innovations that lead to technological change and productivity growth. In short, they are about change and competition because they change market structure. The U.S. economy is a dynamic organic entity always in the process of “becoming,” rather than an established one that has already arrived. It is about prospects for the future, not about the inheritance of the past (Kuratko & Hodgetts, 2004).

Second, entrepreneurial firms are the essential mechanism by which millions enter the economic and social mainstream of American society. Small businesses enable millions of people, including women, minorities, and immigrants, to access the American Dream. The greatest source the U.S. strength has always been the American Dream of economic growth, equal opportunities, and upward mobility. In this evolutionary process, entrepreneurship plays the crucial and indispensable role of providing the “social glue” that binds together both high-tech and “Main Street” activities (Small Business Administration, 1998).

Yet, Stevenson (2000) warned, “with benefits of hindsight, the opportunity of the last twenty years is evident. An entrepreneurial revolution has occurred. Some of the early volunteers have had a most exciting time. The danger lies in presuming that the future is without challenge.”

RESEARCHING THE ENTREPRENEURIAL PROCESS

Researchers are continually striving to learn more about the entire entrepreneurial process to better understand the driving forces within entrepreneurs (Bygrave & Hofer, 1991; Bull & Willard, 1993; and Gartner, 2001). Three major sources of information supply the data related to the entrepreneurial process or perspective. The first source is publications, research-based as well as popular. The following are among the more importance of these publications:

- *Academic journals.* These are refereed journals that contain articles dealing with research—methodology, results, and applications of research—that are well designed and tightly structured. Examples include the *Journal of Small Business Management*, *Entrepreneurship Theory and Practice*, *Journal of Business and Entrepreneurship*, *Journal of Business Venturing*, *Strategic Management Journal*, *Journal of Small Business Strategy*, *Academy of Management Review*, and *Academy of Management Executive*.
- *Textbooks on entrepreneurship.* These texts typically address the development and operation of small firms and entrepreneurial organizations. Sections or chapters are frequently devoted to research on entrepreneurs. Examples include *Entrepreneurship: Theory, Process, Practice* (2004) by Donald F. Kuratko and Richard M. Hodgetts, *New Venture Creation* (2002), by Jeffrey A. Timmons and *Strategic Entrepreneurial Growth* (2004) by Donald F. Kuratko and Harold P. Welsch.
- *Books about entrepreneurship.* Most of these books are written as practitioners' "how-to guides. Some deal with the problems facing the individual who starts a business; others deal with a specific aspects of the subject. Examples include *Start-up* (1992) by William J. Stolze, *In the Owner's Chair* (1992) by Ronald W. Torrence, and *The Business Planning Guide* (1995) by David N. Bangs.
- *Biographies or autobiographies of entrepreneurs.* Examples include *Business at the Speed of Thought* (1999) by Bill Gates and *Radicals and Visionaries* (2000) by Thaddeus Wawro.
- *Compendiums about entrepreneurs.* These are collections that deal with several selected individuals or that present statistical information or overviews of perceived general trends. Examples include *The Entrepreneurs* (1974) by Robert Sobel, which is a compendium of information about selected living entrepreneurs, and John Chamberlin's *Enterprising Americans* (1963), which provides a summary of trends.
- *News periodicals.* Many newspapers and news periodicals run stories on entrepreneurs either regularly or periodically. Examples include *Business Week*, *Forbes*, *Fortune*, and

The Wall Street Journal.

- *Venture periodicals.* A growing number of new magazines are concerned specifically with new business ventures. Most, if not all, of each issue's contents are related to entrepreneurship. Examples include *Black Enterprise*, *Entrepreneur*, *FSB, Inc.*, and *Family Business*.
- *Newsletters.* A number of newsletters are devoted exclusively to entrepreneurship. The *Liaison* newsletter from the U.S. Association for Small Business and Entrepreneurship is an example.
- *Proceedings of conferences.* Publications relating to annual or periodic conferences deal at least in part with entrepreneurship. Examples include *Proceedings of the Academy of Management*, *Proceedings of the International Council for Small Business*, *Proceedings of the U.S. Association for Small Business and Entrepreneurship*, and *Frontiers in Entrepreneurship Research* (proceedings of the Babson College Annual Entrepreneurship Research Conference).
- *Government publications.* The U.S. government publishes a wealth of information on entrepreneurship, small-business operations, and specific small businesses. Examples include the Small Business Administration (SBA) pamphlets as well as the more recent National Federation of Independent Business (NFIB) publications.

The second major source of information about the entrepreneurial perspective is direct observation of practicing entrepreneurs. Through the use of interviews, surveys, and case studies, the experiences of individual entrepreneurs can be related. Analysis of these experiences can provide insights into the traits, characteristics, and personalities of individual entrepreneurs and leads to the discovery of commonalities that help explain the perspective.

The final source of entrepreneurial information is speeches and presentations (including seminars) by practicing entrepreneurs. This source may not go as far in-depth as the other two do, but it does provide an opportunity to learn about the entrepreneurial perspective.

Entrepreneur-in-residence programs at various universities illustrate the added value that oral presentations may have in educating people about entrepreneurship.

EMERGING THEMES IN ENTREPRENEURSHIP RESEARCH AND EDUCATION

As we continue to study and teach in the field of entrepreneurship, it is important to note that research and educational developments that have occurred over the past few years. The major themes that characterize recent research about entrepreneurs and new-venture creation can be summarized as follows:

1. The entrepreneurial and managerial domains are not mutually exclusive but overlap to a certain extent. The former is more opportunity-driven, and the latter is more resource- and “conversation” – driven (Stewart, et al., 1999).
2. Venture financing, including both venture capital and angel capital financing as well as other innovative financing techniques, emerged in the 1990s with unprecedented strength, fueling another decade of entrepreneurship (Shepherd & Zacharakis, 2001 & 2003).
3. Intrapreneurship (corporate entrepreneurship) and the need for entrepreneurial cultures have gained much attention during the past few years (Zahra, Kuratko, & Jennings, 1999; Kuratko, Ireland, & Hornsby, 2001; Morris & Kuratko, 2000).
4. Entrepreneurial strategies have been identified that show some important common denominators, issues, and trade-offs between entrepreneurship and strategy (Hitt, Ireland, Camp, & Sexton, 2001).
5. The great variety among types of entrepreneurs and the methods they have used to achieve success have motivated research on the psychological aspects that can predict future success (Kickul & Gundry, 2002).
6. The risks and trade-offs of an entrepreneurial career—particularly its demanding and stressful nature—have been subject of keen research interest relevant to would-be and practicing entrepreneurs alike (McGrath, et al., 1992).
7. Women and minority entrepreneurs have emerged in unprecedented numbers. They appear to face obstacles and difficulties different from those that other entrepreneurs face (Gundry & Welsch, 2001; Chaganti & Greene, 2002; and Greene, P.G, Hart, M.M., Gatewood, E.J., Brush, C.G., & Carter, N.M, 2003.).
8. The entrepreneurial spirit is universal, judging by the enormous growth of interest in entrepreneurship around the world in the past few years (Peng, 2001; and McDougall, P.P., & Oviatt, B.M., 2003).
9. The economic and social contributions of entrepreneurs, new companies, and family businesses have been shown to make immensely disproportionate contributions to job

creation, innovation, and economic renewal, compared with the contributions that the 500 or so largest companies make (Upton, Teal, & Felan, 2001; and Chrisman, J.J., Chua, J.H., & Sharma, P., 2003).

10. Entrepreneurial education has become one of the hottest topics at U.S. business and engineering schools. The number of schools teaching a new-venture or similar course has grown from a few as two dozen 20 years ago to more than 1,600 at this time (Solomon, et al., 2002; Katz, 2003).

Additionally, a number of major academic institutions have developed programs in entrepreneurial research, and every year Babson College conducts a symposium titled “Frontiers in Entrepreneurship Research” on one of the campuses. Since 1981 the conference has provided an outlet for the latest developments in entrepreneurship. In 2000, the National Consortium of Entrepreneurship Centers (NCEC) was founded for the purpose of continued collaboration among the established entrepreneurship centers, as well as the newer emerging centers, to work together to share information, develop special projects, and assist each other in advancing and improving their centers’ impact. The consortium also established the 21st Century Entrepreneurship Research Fellows. This growing collection of scholars in the field of entrepreneurship have developed a mission to identify leading edge research issues and domains and develop high profile research initiatives that demonstrate the highest level of scholarship to entrepreneurship centers and the academic community at large. The consortium has become the focal point for the Entrepreneurship Centers across the United States to continue the advancement of entrepreneurial excellence. Most of the university centers for entrepreneurship have focused on three major areas: (1) entrepreneurial education, (2) outreach activities with entrepreneurs, and (3) entrepreneurial research. These centers have been and will most likely continue to be the leaders in developing entrepreneurial research. Today, the trend in most universities is to develop or expand entrepreneurship programs and design unique and

challenging curricula specifically designed for entrepreneurship students, more significantly, national recognition is now being given to the top entrepreneurial schools through awards such as the USASBE National Model Programs and the national rankings such as those done by *U.S. News and World Report* and *Entrepreneur Magazine*. With all of those factors in mind, we now examine the emergence of entrepreneurship education.

THE EMERGENCE OF ENTREPRENEURSHIP EDUCATION

Today's current younger generation is sometimes referred to as Generation X because they feel "X-ed" out of traditional opportunities. This generation of the twenty-first century should become known, however, as Generation E because they are becoming the most entrepreneurial generation since the Industrial Revolution. As many as 5.6 million Americans younger than age 34 are actively trying to start their own businesses today. One-third of new entrepreneurs are younger than age 30, more than 60 percent of 18- to 29-year-olds say they want to own their own businesses, and nearly 80 percent of would-be entrepreneurs in the United States are between the ages of 18 and 34! (Ernst & Young, 2000)

With those explosive numbers have come similar increases in the field of entrepreneurship education. The recent growth and development in the curricula and programs devoted to entrepreneurship and new venture creation has been remarkable. The number of colleges and universities that offer courses related to entrepreneurship has grown from a handful in the 1970s to 1,600 in 2003 (Katz, 2003). In the midst of this huge expansion of courses remains the challenge of *teaching* entrepreneurship more effectively.

It is becoming clear that entrepreneurship, or certain facets of it, **can** be taught. Business educators and professionals have evolved beyond the myth that entrepreneurs are born, not made. Peter Drucker, recognized as one of the leading management thinkers of our time, has

said, “The entrepreneurial mystique? It’s not magic, it’s not mysterious, and it has nothing to do with the genes. It’s a discipline. And, like any discipline, it can be learned” (Drucker 1985).

Additional support for this view comes from a ten-year (1985-1994) literature review of enterprise, entrepreneurship and small business management education that reported “...most of the empirical studies surveyed indicated that entrepreneurship can be taught, or at least encouraged, by entrepreneurship education” (Gorman, Hanlon, & King, 1997, p. 63).

Given the widely accepted notion that entrepreneurial ventures are the key to innovation, productivity, and effective competition (Plaschka and Welsch, 1990); the question of whether entrepreneurship can be taught is **obsolete**. Ronstadt (1987) posed the more relevant question regarding entrepreneurial education: what should be taught and how should it be taught?

HISTORICAL CONTEXT OF ENTREPRENEURSHIP EDUCATION

Katz (2003) developed the most comprehensive chronology of entrepreneurship education. While he included economic and agricultural literature and experiences dating back to 1876, and others have touted the Harvard courses taught in 1947, the reality of entrepreneurship education as a force in business schools began in the early 1970s. USC launched the first MBA concentration in entrepreneurship in 1971 followed by the first undergraduate concentration in 1972. From there, the field of entrepreneurship began to take root. By the early 80s over 300 universities were reporting courses in entrepreneurship and small business and by the 90s that number grew to 1,050 schools (Solomon, et al., 1994). Therefore, the real emergence of entrepreneurship education took place in the 1980’s.

In 1987, Zeithaml & Rice reviewed some of the pioneering universities of entrepreneurship education in America. They concluded with several suggestions for the future of education and research in the entrepreneurship domain including:

- The opportunity now exists for entrepreneurship programs to evolve in a manner that is consistent with recent conceptualizations of entrepreneurship.
- A second, compatible direction some programs may wish to take would involve a heavy commitment to research.
- A third direction that appears reasonable would be research on the teaching methods commonly used in entrepreneurship programs.
- Finally, some evidence exists that entrepreneurship courses, programs, and centers may be a source of funds for the university or college.

Their Conclusion:

Zeithaml and Rice contended that education in entrepreneurship covered the entire scope of business administration, and as such was the closest approach to the original concept of management education available in universities at that time. With the continued increasing fragmentation of business education into narrow specializations, they believed that the a field of study that takes a broad, integrative, pragmatic, rational approach to business would find itself increasingly popular with those who aspire to be entrepreneurs, managers, and top executives.

Also in 1987, Ronstadt proposed that entrepreneurial programs should be designed so that potential entrepreneurs are aware of barriers to initiating their entrepreneurial careers and can devise ways to overcome them.

Ronstadt (1987) proposed a two-continuum model of curricular design for entrepreneurship education. His “structured-unstructured” continuum addressed various methods of transferring information and expertise. Among the methods he discussed were lectures, case studies, and feasibility plans. He labeled his second continuum “entrepreneurial know-how/entrepreneurial know-who.” This continuum represented the belief that success in entrepreneurship is dependent not only on knowledge but the network of individuals with whom the entrepreneur is connected.

His conclusion:

Ronstadt contended that an effective program must show students “how” to behave entrepreneurially and should also introduce them to people who might be able to facilitate their success.

Four years later, Robinson & Haynes (1991) conducted a survey of universities with enrollments of at least 10,000 students to determine the extent of the growth in entrepreneurship education. While significant growth was cited, several challenges were pointed out including:

- The challenge that lies in developing existing programs and personnel, thus improving the quality of the field. There are several obstacles that need to be overcome to facilitate the development of quality in the field. At the heart may be the lack of good solid theoretical bases upon which to build pedagogical models and methods.
- Another obstacle is the lack of formal academic programs, representing a lack of commitment on the part of institutions.
- A third obstacle is the maintenance of student interest in the academic programs.

Their Conclusion:

Robinson and Haynes believed that entrepreneurship education had come a long way in the past 20 years, yet there were several weak points in the field that were identified through their research. Of primary concern is the lack of depth of most of the programs that were then started. Further growth would depend upon how new programs were integrated with and nurtured by the established entrepreneurship education system.

THE CURRENT STATE OF ENTREPRENEURSHIP EDUCATION

Today entrepreneurship education in America has exploded to more than 2,200 courses at over 1,600 schools, 277 endowed positions, 44 refereed academic journals, mainstream management journals devoting more issues (some special issues) to entrepreneurship, and over 100 established and funded centers. The discipline’s accumulated “wealth” has grown to exceed \$440 million with over 75 percent of those funds accruing since 1987 (Katz, 2003).

Solomon, Duffy and Tarabishy (2002) conducted one of the most comprehensive empirical analyses on entrepreneurship education. In their review of entrepreneurship pedagogy, they stated, “A core objective of entrepreneurship education is that it differentiates from typical business education. Business entry is fundamentally a different activity than managing a business (Gartner and Vesper, 1994); entrepreneurial education must address the equivocal nature of business entry (Gartner, Bird, and Star, 1992). To this end, entrepreneurial education must include skill building courses in negotiation, leadership, new product development, creative thinking and exposure to technological innovation (McMullen and Long, 1987; Vesper and McMullen, 1988). Other areas identified as important for entrepreneurial education included awareness of entrepreneur career options (Hill, 1988; Donckels, 1991); sources of venture capital (Vesper and McMullan, 1988; Zeithaml and Rice, 1987); idea protection (Vesper and McMullan, 1988); ambiguity tolerance (Ronstadt, 1987); the characteristics that define the entrepreneurial personality (Hills, 1988; Scott and Twomey, 1988; Hood and Young, 1993) and the challenges associated with each stage of venture development (McMullan and Long, 1987; Plaschka and Welsch, 1990).” More specifically they found “experiential learning” widespread and diverse in its application from the literature. The reported types of learning tools included: business plans (Hills, 1988; Vesper and McMullan, 1988; Preshing, 1991; Gartner and Vesper, 1994; Gormal et al., 1997); student business start-ups (Hills, 1988; Truell et al., 1998); consultation with practicing entrepreneurs (Klatt, 1988; Solomon et al., 1994); computer simulations (Brawer, 1997); behavioral simulations (Stempf, et al., 1991); interviews with entrepreneurs, environmental scans (Solomon, et al., 1994); “live” cases (Gartner and Vesper, 1994); field trips, and the use of video and films (Klatt, 1988).

Their Conclusion:

Pedagogy is changing based on a broadening market interest in entrepreneurial education. New interdisciplinary programs use faculty teams to develop programs for the non-business student and there is a growing trend in courses specifically designed for art, engineering and science students. In addition to courses focused on preparing the future entrepreneur, instructional methodologies are being developed for those who manage entrepreneurs in organizations; potential resource people (accountants, lawyers, consultants) used by entrepreneurs; and top managers who provide vision and leadership for corporations which must innovate in order to survive (Block and Stumpf, 1992). Educators are challenged with designing effective learning opportunities for entrepreneurship students. Sexton and Upton (1984) suggested that programs for entrepreneurship students should emphasize individual activities over group activities, be relatively unstructured, and present problems that require a “novel solution under conditions of ambiguity and risk.” Students must be prepared to thrive in the “unstructured and uncertain nature of entrepreneurial environments” (Ronstadt, 1990).

This kind of experience is offered to students in innovative entrepreneurship programs recognized by the United States Association for Small Business and Entrepreneurship (USASBE). Highlights of these programs can be found in Appendix A. These awarded model programs include undergraduate major and concentrations, graduate-level programs, innovative pedagogy, and specialized programs. All of these universities have produced entrepreneurship education that has had real impact on students and a lasting impact on the entrepreneurship field. However, Vesper (1999) warned that there was “unfinished business” left from the 20th Century. He saw this in terms of legitimacy, paradigms, content, balance of research, autonomy, and permanence. While it can be argued that legitimacy has been attained in the current state of entrepreneurship education, there are critical challenges that lie ahead.

CONCERNS/CHALLENGES FOR ENTREPRENEURSHIP EDUCATION

Stevenson (2000) stated, “Entrepreneurial educators must be more than cheerleaders. We can no longer simply say ‘entrepreneurship is different.’ Entrepreneurship is now a part of the mainstream. Perhaps the greatest danger of all is that the hardy band of entrepreneurial scholars

will become like many successful businesses. Business and scholars fail by not valuing change. Guarding the past, espousing orthodoxy and refusing to see the wisdom inherent in the challenges of the young and inexperienced will lead to the same problems in education as in business.”

With that thought in mind, we examine the current challenges confronting entrepreneurship education. Using Solomon, et al., (2002) and Katz’s (2003) research studies, five specific issues appear on the forefront.

1. *The Maturity of the Field in U.S. Business Schools*

Katz (2003) argues that the presence of entrepreneurship courses in all AACSB business schools as well as over 1,000 non-accredited schools points to a maturing of the entrepreneurship field. He adds the infrastructure numbers of 300 endowed positions, 100 centers, 44 academic journals, and the “legitimization” of the field by the mainstream media (*Business Week* and *U.S. News & World Report*). This is all true and I agree that it points to legitimization but I respectfully disagree about maturity. The skirmishes and small battles are being won in business schools because of the sheer power of the already mentioned numbers and the tenacity and passion of individual faculty members. However, the “real war” continues to wage for complete respectability and leadership. How many full *departments* of entrepreneurship exist? How many young faculty are being granted *tenure* purely for their research and teaching in entrepreneurship? How many *deans* are rising from the ranks of entrepreneurship faculty? How many business schools are ranking the *pure entrepreneurship journals* on their “A” list? Please, legitimacy—yes; maturity—no! This is the time for all of those questions to be answered in the positive. Real maturity of the entrepreneurship field has yet to be experienced.

2. *The Research/Publications Dilemma*

Katz (2003) poses the dual problems of a publications glut—too many journals (44) chasing too few quality articles; and the push for leading-edge entrepreneurship researchers to publish in the “mainstream management journals.” I agree with both of these points, however, I see them as opportunities rather than problems. First, it is indeed gratifying to see *Academy of Management Journal*, *Academy of Management Review*, *Academy of Management Executive*, *Strategic Management Journal*, and the *Journal of Management* publishing more **entrepreneurship** research. I believe that trend should be encouraged to continue. The larger issue centers around business schools counting and respecting the mainstream entrepreneurship journals. While it is beginning to happen, this process is slow and agonizing for our faculty. Yet, this challenge may be the “linking pin” to the publication’s dilemma. If we, as entrepreneurship faculty, push for the ranking of our respected journals—*Journal of Business Venturing*, *Entrepreneurship Theory & Practice*, *Journal of Small Business Management*, etc.—then more quality research venues will be open for young faculty to legitimately pursue. The careers of young faculty may very well ride on this challenge. There exists the simple fact that research drives business schools. Therefore, research in entrepreneurship should be an accepted and respected part of this drive. We are beyond legitimacy it is time for leadership.

3. *The Faculty Pipeline Shortage*

Again, Katz (2003) points to two simultaneous problems. First, is the shortage of entrepreneurship faculty at every academic rank, and second, the lack of PhD programs to provide pure entrepreneurship faculty. It is true that we need more business schools to develop sound PhD programs in entrepreneurship. Taking the lead from Colorado, Indiana, Georgia, and

Case-Western Reserve, more of our leading business schools need to establish programs. However, until more programs develop, faculty can be trained (“retreaded”) if we make the effort. For years, Babson College has produced the SEE program to develop faculty. Dr. Mike Morris at Syracuse University has developed an “Experiential Classroom” for entrepreneurship education. It has produced remarkable results in helping faculty move into this field. These programs must be continued, supported, and enhanced. Organizations such as USASBE, the National Consortium of Entrepreneurship Centers, and the Academy of Management’s Entrepreneurship Division, along with the Coleman Foundation and the Kauffman Foundation need to support this effort as part of their mission. If the business schools will not develop the Ph.D programs then the entrepreneurship faculty must develop the needed education themselves. We have pioneered an entire academic field that has grown exponentially in thirty years! Why should we stop short now?

The other issue, however, is the lack of faculty at every rank. This challenge relates back to the respectability of entrepreneurship research and journals at our business schools. Resolve that issue and more entrepreneurship faculty will receive tenure and promotion. Thus, the ranks will grow in number rather than shrink. Once again, entrepreneurship is legitimized but not respected. It is time for the entrepreneurship field to move into a leadership position within our business schools.

4. *The Failure to Apply Technology*

Solomon, et al., (2002) found a negative trend with regards to technology in their national survey on entrepreneurship education.

“A surprising trend emerged from the data regarding entrepreneurship education and the use of technology. Of those that responded to the survey only 49 percent indicated that they offer information on the web regarding entrepreneurship and new venture creation to

students and entrepreneurs. Also, only 30 percent of those who responded indicated that they offer on-line management and technical assistance for students and entrepreneurs. Finally, 21 percent of the respondents indicated they use distance-learning technologies in their entrepreneurship education courses or concentrations.”

Entrepreneurship cannot be a field that succumbs to stagnation. It must recognize and apply technologies in the educational setting. In many respects entrepreneurship education may actually transform the educational setting. For example, some universities are applying unique technological applications such as the George Washington University. They developed a software tool entitled, “Prometheus.” In addition to offering students and teachers the opportunity to interact via e-mail, bulletin boards and live discussion formats, Prometheus and other course management programs also integrate multimedia options into the course. Students can access a course site, download a posted journal article, watch an instructional video or DVD and return a completed assignment from any Internet connections. Educators can follow up with individualized online coaching and feedback to students.

Another example is Ball State University’s award winning MBA in Entrepreneurship via television (Kuratko, 1996). The entrepreneurship classes are taught in a state-of-the-art television studio. Students on campus attend class in the studio while off-campus students attend class at designated reception sites. A television signal is transmitted by satellite to sites in Indiana, Kentucky, and New Jersey. This closed-circuit television network is called the Indiana Higher Education Telecommunications System (IHETS). Some businesses are reception sites for distance classes allowing employees to work full-time at their jobs by day and part-time toward an MBA degree at night and early morning. Both the on-campus and the distance learning MBA programs are fully accredited by AACSB International-The American Assembly of Collegiate Schools of Business. Through interactive technologies the entrepreneurship degree is delivered

at convenient locations and at times conducive to working professionals. One of the first universities to offer an MBA degree by distance education, Ball State University is a leader in using an innovative approach in delivering a degree to those seeking to learn and advance in the contemporary business environment. There is no question that this mode of delivering entrepreneurship education will continue to expand in the 21st century.

5. *Avoiding Stagnation Due to Complacency*

Katz (2003) contends that because the field has matured, there is now a danger of being “complacent with success.” He argues that as entrepreneurship educators, we may be forgetting our earlier “lean and mean” mindset that helped fuel the tremendous growth of our field. There is truth here but I’m not so sure there was ever a “lean and mean” mindset. I believe there was a “pioneering passion” in some and a “survival” mentality in others. It was an age of fighting for a cause. It was our crusade! Today, as I mentioned earlier, the war is still waging at the highest levels. Because today it’s about **leadership!** We need to ignite the young entrepreneurship faculty. Our collective leadership must inspire the next generation of entrepreneurship faculty to take our discipline to the next plateau. Entrepreneurship’s rightful place in business schools of the 21st Century will be one of leadership — curriculum, research, faculty and funding. We stand of the cusp of this monumental step. Our faculty young and old must bind together to climb the next plateau and move entrepreneurship into its leadership position.

CONCLUSION: THOUGHTS ON THE FUTURE

It has been said that one definition of insanity is “doing the same thing and expecting different results.” Therefore, the emerging generation of entrepreneurship educators must avoid the *paradigm paralysis* that has consumed so many business disciplines. John Maynard Keynes said, “The greatest difficulty in the world is not for people to accept new ideas, but to

make them forget about old ideas.”

“Clearly, for entrepreneurship education to embrace the 21st century, professors must become more competent in the use of academic technology and also expand their pedagogies to include new and innovative approaches to the teaching of entrepreneurship. For example, the use of video conferencing and streaming of video case studies show promise as viable uses of educational technology. The ability to bring new ‘live’ perspectives from different geographic locations and schools will add to the richness of the educational experience. Cyberspace has virtually erased time and distance transforming the theory of education into the practice of implementation” (Solomon, Duffy, Tarabishy, 2002, pp. 82-83).

Entrepreneurship is the new and its about continual innovation and creativity. It is the future of business schools and it should begin to move into a leadership role. Today, the words used to describe the new innovation regime of the 21st Century are: *Dream, Create, Explore, Invent, Pioneer, and Imagine!* Kevin Kelly in his article “New Rules for the New Economy,” stated, “Wealth in the new regime flows directly from innovation, not optimization; that is, wealth is not gained by perfecting the known, but by imperfectly seizing the unknown.”

Entrepreneurship educators must have the same innovative drive that is expected from entrepreneurship students. Vesper (1999) made us think out of the box when he stated, “Entrepreneurship in universities has so far been developed as an add-on to business education, first as an elective course, then more courses, and finally as a concentration, major or program. So far it has largely been tucked in and around the existing core. Its teachers presently must be approved by established faculty from other fields. Its courses currently must fit into the existing curriculum, grading system, and calendar. It serves the students who, for the most part, apply for a conventional business education. But what might be different if we had started first with a

school of entrepreneurship and then added a few courses for a concentration or major in middle management?” An interesting thought and certainly a way to think about the entrepreneurship discipline in a different way. The noted author on creativity, Dale Dauten, once said, “different is not always better, but **better is always different!**”

Meyer (2001) stated, “There can be no lethargy if we are to move the entrepreneurship cause to the next level. The skeptics are still alive and well. Renewed energy is needed to stimulate institutional reform and continue to establish entrepreneurship education legitimacy. We need to attract and develop the next generation of teachers. The war is not over. Vigilance and persistence are still the order of the day. And it is worth the effort.”

I believe we are at a point in time when the gap between what can be imagined...and what can be accomplished has never been smaller. We must remember that “tomorrow belongs to those who have vision today! It is our time, it is our vision, it is our leadership role. As John F. Kennedy once said, “It is time for a new generation of leadership to cope with new problems and opportunities. For there is a new world to be won.”

APPENDIX A

USASBE's NATIONAL MODEL ENTREPRENEURSHIP PROGRAMS

Undergraduate:

Ball State University

The overall objective of this program founded in 1983 is not only to teach prospective entrepreneurs fundamentals for starting and running a business, but also to put them through the paces of actually proposing a business and getting it started. Each student in the program must write a viable business plan that is submitted to a professional board for review. Approval of the plan leads to graduation; disapproval does not. This “spine-sweating” experience mirrors the experiences of actual business people who have to put themselves on the line. The result is that graduates are expected to be prepared to enter the business world and be productive immediately, whether as an entrepreneur or working for someone else.

Baylor University

This curriculum provides a proper balance between theory and practice. It has evolved and changed in accordance with advances in the field since its inception in 1980. Small class sizes enable the faculty to get to know the students well and to help them develop appropriately. Ethics and values are stressed throughout the curriculum, as is community involvement. Involvement is stressed not only in the classroom, but also through extracurricular activities such as the student chapter of the Associations of Collegiate Entrepreneurs and the programs of the John F. Baugh Center for Entrepreneurship. Faculty is engaged in research and is active in many professional associations, and is constantly searching for new opportunities for development. An international focus is growing and will offer students expanded opportunities in the future.

Kennesaw State University

This program's focus is upon providing an integrative learning experience for its students through its emphasis on both theoretical perspectives and “real world” practices. By utilizing a diverse faculty with experience in owning and managing their own business, students are exposed to a broad range of knowledge on requirements for a successful career in entrepreneurship. At the same time, entrepreneurship courses typically utilize a wide array of entrepreneurs as guest speakers to further enhance the educational experiences of the students. Students are also encouraged to continue their pursuits of an entrepreneurial career through further work on business plans and venture management plans as directed studies and/or through competition in various regional and national business plan competitions.

Miami University

The entrepreneurship program is designed around the theme of “dreamers and doers.” This phrase goes to the essence of what the program and thematic sequence are about. “Dreaming” involves identifying possibilities, recognizing patterns, and piercing together creative solutions. It entails significant reflection not just on the commercial or profit implications of an entrepreneurial concept, but also the human, legal, moral, and ethical implications. “Doing” is concerned with taking personal responsibility for implementing one's ideas. This requires

students to appraise the relevant constraints and resource requirements and develop realistic and pragmatic methods for bring a concept to fruition. Again, however, it is emphasized that realism and pragmatism do not simply refer to economic realism, but to the need to consider trade-offs among a wide range of economic, social, political, and ethical variables.

The University of St. Thomas

The Learning Portfolio is an opportunity to integrate all of the learning experiences entrepreneurship students have available at UST, including class work, the Entrepreneurial Society, internships, their own businesses, family business, their service-learning requirement, the Liberal Arts core, and the Business major core. The portfolio is a cumulative assignment that is evaluated after each entrepreneurship course and at least once by students' advisors. The portfolio demonstrates the students' learning the following areas: 1) the importance of cash flow management, 2) the business plan, 3) recognizing opportunities, 4) management growth, 5) creativity, 6) networking, and 7) ethics.

University of Victoria

During the first week of classes, students are assisted in ascertaining their "inquiring style," and their "intelligence emphasis" using measurement tools developed by the Teaching Team based upon published research in this area. Throughout the program, students are encouraged to "customize" their assignments to fit each of their learning styles. Much of the UVIC Entrepreneurship Program teaching is based upon expert information processing theory. Specialized "expert assistance" software assists students by helping them to speed up the use of their newly acquired "expert scripts." These tools accomplish this by replicating judgement-based elements of entrepreneurial expertise that normally takes longer to acquire than this program allows. Specifically, the software tools facilitate: 1) Understanding "the individual": evaluation of the student's own expertise (New Venture Profile); 2) Understanding "the work": evaluation of the completeness of a venture (New Venture Template); and 3) Understanding "the others": evaluation of the venture environment (Stakeholder Analysis Model).

University of Arizona

The Berger Entrepreneurship Program attracts undergraduate seniors with an interest in obtaining a comprehensive educational foundation that will equip them to: 1) *identify*; 2) *assess*; 3) *pursue*; 4) *create* innovative business opportunities. The undergraduate entrepreneurship program begins with the process of partner selection in the spring, following acceptance to the program. Student teams then work together on a summer feasibility study of their prospective business plans. Students enter the academic year with their plan selected and the ground-work laid for development throughout the fall and spring semesters. This year long endeavor is strengthened through the support of adjunct faculty, visiting entrepreneurs, and community mentors. The second semester culminates in two rounds of competition where students' final business plans are judged by regionally and nationally prominent entrepreneurs, alumni, venture capitalists, and other friends of the Karl Eller Center.

Graduate:

The University of Illinois at Chicago

With the second largest business community in the nation, Chicago is an entrepreneurship hotbed with stellar entrepreneurs and numerous opportunities for UIC entrepreneurship students. UIC offers outstanding entrepreneurship research faculty and highly successful faculty entrepreneurs in our many courses. UIC possesses an outstanding network with 200 high tech and low tech entrepreneurs in the headquarters for the Chicago Area Entrepreneurship Hall of Fame. They support a Distinguished Speaker Series, Entrepreneurship Week, and a new one-on-one Entrepreneurship Mentoring Program. The Institute is the home of the national student organization, The Collegiate Entrepreneurs' Organization (CEO). The Institute's Center for Urban Business (CUB) connects MBA students with entrepreneur-driven businesses in a consulting relationship and a new Seed Capital Consortium connects students with angel investors.

The University of Arizona

The program begins with the process of partner selection in the spring preceding the MBA's second year and following entrepreneurship program acceptance. Student teams work to complete and refine a feasibility study of their prospective business plan and enter the academic year with the concept for their plan selected and the ground-work laid for its development throughout the fall and spring semesters. Throughout the summer, fall, and spring semesters, students are exposed to a variety of experiential and traditional learning opportunities, all designed to enhance the entrepreneurship educational experience.

DePaul University

The MBA in entrepreneurship program offers proficiency in self-employment skills. It is not only geared toward independent career goals, but also provides an opportunity to develop a customized business plan with professional assistance. The Entrepreneurship Concentration is characterized by its contemporary, integrative approach to management and by having the most comprehensive set of entrepreneurship courses in the U.S.

The University of Georgia

The MBA Concentration in Entrepreneurship emphasizes real world, hands-on, team-based education. It also builds on several unique strengths of the University. These include: 1) The University's world-class agricultural biotechnology facility, facilities, and research. In a typical year, from one to three teams of UGA MBAs have an opportunity to develop business plans based on pioneering breakthroughs in the field of biotechnology made by UGA faculty. One such innovation involved a vaccine to spay female dogs and cats with a series of shots instead of the traditional operation. And, 2) The University's world-class Ph.D. program in Entrepreneurship. To date, UGA Ph.D. students have won 11 of the 36 major dissertation awards given in the fields of Entrepreneurship and Small Business over the past 25 years, a total equal to that of the next five best schools combined. The new knowledge generated by these dissertations gets immediately transferred into UGA's MBA Entrepreneurship courses.

University of St. Thomas

The hallmark of this Entrepreneurship Program is its experiential-based learning philosophy. It focuses on combining theory, practice, and ethics to assist students create and transform businesses. This is done through seamless system of services for every stage of the entrepreneurial cycle, from pre-venture through start-up, early growth, maturity, renewal, and harvest. Rather than focusing on a broadcast approach to entrepreneurship education, the program concentrates on helping individuals achieve their vision of forming new and growing businesses whether they be bootstrapped start-ups, corporate ventures, family businesses, or high tech, fast growth ventures. This orientation distinguishes our program from others. Host-company projects, internships, and other field-based learning projects require students to fully integrate concepts, skills and tools with effective application and practice. Classes are taught, or co-taught, by faculty who have started and grown entrepreneurial efforts. Through the fusion of small business, franchising, venture, family business and entrepreneurial initiatives, the program offers a wide range of programs for both the traditional and non-traditional student.

St. Louis University

This program has a long history of student-developed businesses which gain national and regional awards, with the largest being Courtney Hennessey, who was awarded the Most Creative Business in the 2001 North American Collegiate Entrepreneurs Award. In total, Saint Louis University students have developed business plans for more than 240 real and potential companies. These include nationally recognized family businesses, such as Selkirk's Auction House and BSI Constructors; intrapreneurial business plans for Sprint PCS retail stores, Glaxo Wellcome's Emollience prescription cream, and more than five dozen regionally based consulting firms; as well as plans for social entrepreneurship ventures, such as Pucks of Power, a youth charity hockey tournament, and Visions, a youth club in rural Missouri. These plans have been mentioned in *Fortune*, *Entrepreneur*, and *Inc.* magazines. Our students have also been finalists in major national business plan competitions and frequent contributors to the *Business Plans Handbook* published annually by Gale Publishing, which makes the best of our students' plans available in libraries across the nation. In business plan development, our students are supported by our ongoing relationships with Bank of America and the Westgate group.

The George Washington University

The MBA Concentration in Entrepreneurship and Small Business Management has several key basis that make it dynamic, practical, and exciting. The program leverages it's unique location within an arm's reach of a hotbed of new venture/start-up activity including the Northern Virginia's technology corridor and Maryland's bio-tech corridor. It is also strategically located in the heart of the nation's capital that houses the Small Business Administration and various other government and non-government organizations. In addition to course work, students can take advantage of participating in other programs that include: The Council for the Advancement of Small Businesses; The Center for Family Enterprise; and The world Resources Institute. The mission is to strengthen the Metro area's small business community by providing hands-on tactical assistance to entrepreneurs on their most urgent needs. This is accomplished through student consulting teams and specialized research projects. Additionally, global outreach projects are pursued.

Ball State University

The MBA in Entrepreneurship enables its graduates to meet the challenges of corporate innovation through an integrated curriculum and a delivery system that enables students to work toward a degree on campus full- or part-time, or part-time at off-campus sites. Indiana, Kentucky, and New Jersey have more than sixty locations where part-time students receive an MBA through interactive distance education. Both the on-campus and the distance learning MBA programs are fully accredited by the American Assembly of Collegiate Schools of Business (AACSB).

San Diego State University

The program is designed to provide students with the tools, knowledge, and skill needed to prepare for the challenges of working in entrepreneurial companies and starting their own ventures. Students can customize their coursework to meet a wide array of career needs including those who wish to start and manage their own firms; work in growth-oriented organizations; serve as profession service providers to entrepreneurial clients; work with investors in evaluating proposed entrepreneurial ventures; and/or pursue further graduate study in entrepreneurship.

The University of Texas at Austin

- Core courses are organized by growth phases of the entrepreneurial venture and are all taught using the case method.
- The MOOT CORP[®] Competition provides MBAs the opportunity to write business plans and present them to investors. Each year MBAs are launching ventures out of this process.
- Ninety percent of our Executive MBAs take one or more entrepreneurship courses and are increasing starting new ventures.
- The University's Austin Technology Incubator provides an initial home for new ventures and a "teaching hospital" for MBAs and business faculty.
- UT MBAs have created special programs with venture capitalists including a \$1 million fund for investing in start-ups.

The University of Louisville

This focus on entrepreneurship is pervasive in that it is rooted in the Louisville community's strategic plan (The Challenge for Excellence) and the College's strategic plan. Because the U of L MBA programs in entrepreneurship are core components of both community and college strategic plans, entrepreneurship education at U of L enjoys a unique opportunity to become and is becoming a model for entrepreneurship education world wide. In fact the applicability and success of the program is being tested through U of L's International MBA programs in Athens, Hong Kong, Panama, and Singapore.

Babson College

The first year of Babson's Two-Year MBA program centers on developing and using entrepreneurial skills to solve actual business problems. Student learning mirrors the business cycle: creativity, opportunity recognition, the invention or discovery of a product or service, assessment of the business opportunity, the building the market and delivery system, and growth and renewal. In addition, in the summer of 2000, Babson launched an experimental program

called the *Entrepreneurship Intensity Track* (EIT). This innovation curriculum, to which Babson MBA students are admitted after a rigorous application process, is designed for students who are committed to starting a business by the time they graduate. Full-time, Evening, and One-Year MBA's can all participate in the EIT.

Ph.D Programs:

University of Colorado

The Ph.D. Program in Entrepreneurship at the Leeds School of Business has positioned itself as the premier program worldwide in this significant niche. The program focuses its research and teaching at the intersection of entrepreneurship and strategic management (i.e., strategic entrepreneurship). Our early mover strategic entrepreneurship focus has distinguished us for excellence in producing Ph.D. graduates who meet the market demands of high reputation academic institutions. Our Program includes rigorous coursework and faculty collaboration in research, which prepares our graduates to publish in top-tier academic journals. Included in our four-year Program are seminars, workshops, and teaching assignments that distinguished Colorado Ph.D.'s as high potential teachers and researchers. The environment of the Ph.D. Program is supportive and collegial, while at the same time rigorous.

University of Georgia

Georgia's Ph.D. Program in Entrepreneurship won the 1998 USASBE National Model Program Award, one of only two programs in the country to do so. To date, Georgia has graduated 19 Ph.D. students who have written dissertations in Entrepreneurship and/or Small Business. Over the past 20 years, Georgia Ph.D. students have won a total of eleven different dissertation awards in the fields of Entrepreneurship and Small Business. More specifically, they have won five Heizer Awards and one Heizer Certificate of Distinction for Outstanding Research in New Enterprise Development, one NFIB Award and one NFIB Certificate of Distinction for Outstanding Research in Entrepreneurship and Independent Business, two TIMS/INFORMS Award for Outstanding Research in Entrepreneurship; and one Carland Award for Outstanding Research in Entrepreneurship and Small Business. This equals the total of the next five universities (Harvard, Maryland, Purdue, South Carolina, and Wharton) combined.

University of Pittsburgh

Because of the flexible nature of the program students wishing to major in Entrepreneurship have selected from a variety of courses. These courses include not only those offered by the Katz Graduate School of Business, but also other colleges of the University of Pittsburgh and the adjacent Carnegie Mellon University. The students proposed program is designed in collaboration with his or her major and minor advisors and with the approval of the Doctoral Program Director. Thus far eight students have written dissertations in the Entrepreneurship area. They have emphasized a wide range of topics. One of them, Jeffrey Covin, is now a chaired professor at Indiana University.

Innovative Pedagogy

Dr. Charles Toftoy, George Washington University

“Using the World Wide Web and NFIB Measures of Small Business Problem Importance to Teach Small Business Management.”

The content of this Small Business Management course is designed new each semester by the students taking the course using the National Federation of Independent Business (NFIB) Measures of Small Business Problem Importance Database. The NFIB Database itself contains a listing of the problems that the NFIB’s members—14,000 small business men and women located throughout the United States—have identified as the most important issues facing them in the annual survey the NFIB does of its membership. Using the Database, the students taking the Small Business Management course each choose one topic from the list that they will study during the term as part of a consulting project which they will do with a local small business. The net result is that the topics chosen have both real world relevance and strong interest to the participating students and the businesses with whom they are consulting.

Dr. Donald F. Kuratko, Ball State University

“Entrepreneurship as a Spine Sweating Experience”

New Venture Creation is a carefully developed capstone course designed as the intersection of experiential and cognitive strategies to teach entrepreneurship. Early in the term the class sessions simulate workshops to understand and analyze business plans. A new-venture creation manual (i.e., business plan preparation guide) is used to develop an appreciation for functional analyses. In the latter part of the term, each student works to develop his or her own business plan for a new venture that will have solid potential. The students recognize that they must submit this plan to a board of professionals. The course culminates with the review and critique of the business proposals by a panel from our Board of Advisors who are professional consultants, investment bankers, entrepreneurs, and venture capitalists. The students present the highlights of their plans for 75 minutes and the board reviews the proposals, evaluating them for their actual feasibility rather than as a purely academic exercise. The students are also evaluated for their completeness of effort. If a plan is judged as an acceptable venture capable of being financed and launched, the student receives an A. If a plan is rejected by the board, the student receives an F. In this manner, students learn the challenge and fear that confront contemporary entrepreneurs. In other words, entrepreneurs must go to bed at night and feel their “spine sweat,” because of the realization that everything they possess is at risk with their venture. Therefore, with graduation only one week away (and this course is a graduation requirement for the major), students feel the reality of their “spine sweating” also. Students can **receive only an A or an F**. Graduation results from their efforts on this business plan, which would be a true culmination of their college education. This course at Ball State University cannot be repeated until one year has passed because it is only offered in the spring. Like a would-be entrepreneur, the student must either try again at the next available opportunity (the following spring) or change direction (i.e., select a new major). This is simply not an exercise in “hazing” or a “scare tactic,” it is a true confrontation with risk! There has never been a class in which all members have passed (the 20 year pass rate is 78 percent with a 22 percent fail rate).

Dr. Gary M. Cadenhead, The University of Texas at Austin
“Teaching Entrepreneurship Using MOOT CORP® New Venture Modules”

MOOT CORP® New Venture Modules are intended to develop students’ skills in evaluating, writing, and presenting business plans. A MOOT CORP® New Venture Module includes the following:

1. A winning business plan from the MOOT CORP® Competition;
2. Discussion questions to guide students through the major issues in the plan;
3. The evaluation form used by the judges;
4. A videotape of the MBA’s presentation and question and answer session with the judges;
5. Responses to the discussion questions;
6. Scores from the judges; and
7. An update on the team’s experience since winning the MOOT CORP® Competition.

Class begins with a case method type discussion of the business plan. The basic questions is whether the student would invest in the proposed venture. After around 20 minutes (or when the class energy begins to fall), the instructor shows the videotape of the team’s presentation. More discussion follows. Has student interest in investing gone up or down? Why? What has the team done to make its venture more attractive? This discussion should focus both on the presentation and the content of the plan. This segment of the discussion concludes with the instructor eliciting questions from the class which the students would like to ask the team.

At this point, the video of the team’s question and answer session is viewed. The discussion then resumes with a comparison of the questions the students would have asked, and those asked by the professional investors. Finally, the discussion returns to the basic questions: Would the students pass on this new venture opportunity, or seriously begin due diligence? The instructor ends the class by revealing what has happened to the team since winning the competition.

Twenty-one MOOT CORP® New Venture Modules, including the last nine winners and all five finalists for 2000 are currently available at www.classmap.com/mootcorp.

Dr. Charles W. Hofer, University of Georgia
“Teaching Entrepreneurship Using the 3 Rs and 3 Fs: Rigorous, Real-world Review, & Frequent, Fast Feedback”

The approach developed and used in Georgia’s MBA Entrepreneurship concentration utilizes three different arts of people normally associated with Entrepreneurship courses; namely Entrepreneurship educators, Entrepreneurs, and Venture Consultants of various types. These individuals are used in both traditional and *unique* ways. In traditional fashion, the Educator designs the course and delivers lectures on various *generic* aspects of the new venture startup process. Several Venture Consultants as well as one or two Entrepreneurs are used as part of this educational process to provide even more specialized *generic* knowledge of various issues associated with the startup process. All students are required to prepare business plans related to the potential startup of a venture designed to capitalize on the exploitation of a *specific real world* opportunity. What is *unique* is the nature of the opportunity and the ways that these students are mentored and reviewed vis-à-vis the exploitation of this opportunity. First, mentors

are assigned to each venture project team who have specific knowledge of the industry in which the venture will operate. The result is that the students working on each project are provided access to industry participants who have various types of *specific* knowledge needed for the *actual real world operation* of the proposed venture. Equally, if not more important, all projects are reviewed by experts knowledgeable about the industries involved at least four to five times during the course of a single semester. Moreover, all teams are provided detailed feedback vis-à-vis the content of their proposed plans within one week of each presentation, and sooner if at all possible. The feedback is provided in writing, via e-mail, and through audio and video tapes. This approach has proven particular effective. Over the past eight years, Georgia MBAs have won 9 of the 32 National and International Business Plan competitions held during this period, and have finished in the Top Five 19 other times.

Dr. Scott W. Kunkel, University of San Diego
“Consultant Learning: A Model for Student Directed Learning in Entrepreneurship Education”

“Consultant Learning” is a new method of structuring courses in a way that is designed to empower students and place them in control of their own learning process. The “Consultant Learning” approach turns the classroom into a laboratory for the free enterprise system, using price as the allocation mechanism for grades earned. Students determine their own grades by completing projects which earn “consulting fees.” The amount of consulting fees each student chooses to earn determines his/her grade.

The “Consultant Learning” approach is built upon a significantly different paradigm from the traditional college course. Traditional courses operate on a system in which all students are required to do the same *quantity* of work and the *quality* of the work performed is judged and graded. Accepting low quality work and simply lowering a student’s grade for poor quality is the predominant grading paradigm on university campuses. In the “Consultant Learning” approach, by contrast, the required *quality* of the work students must perform is held constant at a very high level – “professionalism” – and low quality work must be redone and resubmitted until it meets the professionalism standard. Then the *quantity* of professional quality work each student performs during the semester becomes the basis for his/her grade. An article on the “Consultant Learning” approach was published in the April 2002 edition of the *Journal of Management Education*, 26(2).

Specialty Programs:

The University of Portland’s E-Scholars Program

The vision of the E-Scholars Program has been to create the best learning experience available to students. To do so, it is necessary to overcome barriers that typically hinder college classes. The first barrier is time. Regular classes meet for three hours each week which is not enough time for students to create, develop, and implement a business plan while acquiring basic entrepreneurial skills. Because the nine-credit E-Scholars Program is spread out over three semesters, students do not encounter the time schedule typical of other classes. E-Scholars work on their program for two years and some continue to develop it after graduation. The second barrier is **location**. Most traditional classes are held in a classroom. The E-Scholars

program enables students to travel to the best location for them to learn more about their projects, to meet with the best experts on any given topic or to tour a world-class business. Literally, the world is a classroom. Another barrier to a student's learning is **cost**. College students often do not have the resources to take advantage of national and international conferences and workshops. The E-Scholar Program provides money to students who need funds to succeed at their venture and complete the educational process through \$5,000 sponsorships for each E-Scholar. Many college students are **isolated** from the business world. Through a strategic alliance with the Oregon Entrepreneurs Forum, E-Scholars are exposed to many business people in a variety of networking environments. E-Scholars spend time building relationships with the program's sponsors and other local entrepreneurs in social and educational settings as guest lectures, sponsor dinners, pub talks, speakeasies and private panel reviews.

Stanford Technology Ventures Program (STVP)

The Stanford Technology Ventures Program is the entrepreneurship center in Stanford University's School of Engineering. STVP's mission is to accelerate high-technology entrepreneurship education and research for scientists and engineers on campus, across the country and around the world. STVP believes that it is critically important to provide engineers and scientists with an understanding of business and entrepreneurship so that they can understand how their work fits into the context of an organization, lead effective teams, and seize business opportunities for new ventures. STVP teaches a wide range of courses to scientists and engineers on campus and supports academic research on high technology entrepreneurship. In addition, STVP has a strong outreach effort that includes making all teaching resources and tools available to entrepreneurship educators. All STVP programs are described in detail on the following web site: <http://stvp.stanford.edu>.

References

- Ahuja, G. & Lampert, C.M. 2001. "Entrepreneurship in the Large Corporations: A Longitudinal Study of How Established Firms Create Breakthrough Inventions." *Strategic Management Journal* (special issue) 22(6): 521-544.
- Amit, R., Brander, J., & Zott, C. 1988. "Why Do Venture Capital Firms Exist? Theory and Canadian Experience." *Journal of Business Venturing* (June): 441-466.
- Antoncic, B. & Hisrich, R.D. 2001. "Intrapreneurship: Construct Refinement and Cross-Cultural Validation." *Journal of Business Venturing* 16(5): 495-527.
- Bangs, D.N. 1995. *The Planning Guide*, 7th ed. (Chicago: Upstart Publishing).
- Block, Z. & Stumpf, S.A. 1992. "Entrepreneurship Education Research: Experience and Challenge," In D. L. Sexton and J.D. Kasarda, (Eds.) *The State of the Art of Entrepreneurship*, pp. 17-45. Boston, MA: PWS-Kent Publishing.
- Bull, I. & Willard, G.E. 1993. "Towards a Theory of Entrepreneurship." *Journal of Business Venturing*, May, (8): 183-196.
- Bygrave, W.D. & Hofer, C.W. 1991. "Theorizing about Entrepreneurship." *Entrepreneurship Theory and Practice*, Winter: 12-22.
- Chaganti, R. & Greene, P.G. 2002. "Who Are Ethnic Entrepreneurs? A Study of Entrepreneurs' Ethnic Involvement and Business Characteristics." *Journal of Small Business Management* 40(2): 126-143.
- Chamberlin, J. 1963. *The Enterprising Americans: A Business History of the United States* (New York: Harper & Row).
- Chrisman, J.J., Chua, J.H. & Sharma, P. 2003. "Current Trends and Future Directions in Family Business Management Studies: Toward a Theory of the Family Firm." *Coleman White Paper Series*, www.usasbe.org.
- Charney, A. and Libecap, G.D. 2000. "Impact of Entrepreneurship Education," *Insights: A Kauffman Research Series* (Kauffman Center for Entrepreneurial Leadership).
- Clark, B.W., Davis, C.H., and Harnish, V.C. 1984. "Do Courses in Entrepreneurship Aid in New Venture Creation?" *Journal of Business Management*, 2(26): 26-31.
- Dauten, D. 1986. *Taking Chances: Lessons in Putting Passion and Creativity into Your Work Life* (New York: Newmarket Press).

- Dennis, W.J., Jr. 2000. *Small Business Policy Guide* (Washington, D.C.: NFIB Foundation), 12-13.
- Fried, V.H., Burton, G.D., & Hisrich, R.D. 1988. "Strategy and the Board of Directors in Venture Capital-Backed Firms." *Journal of Business Venturing* (June): 493-504.
- Frontiers of Entrepreneurship Research 1981-2003.*(Wellesley, MA: Babson College, series of volumes).
- Gartner, W.B. & Vesper, K.H. 1994. "Executive Forum: Experiments in Entrepreneurship Education: Successes and Failures." *Journal of Business Venturing*, 9: 179-187.
- Gartner, W.B. 2001. "Is There an Elephant in Entrepreneurship? Blind Assumptions in Theory Development." *Entrepreneurship Theory and Practice*, 25(4): 27-39.
- Gates, B. 1999. *Business at the Speed of Thought* (New York: Time Warner).
- Gorman, G., Hanlon, D., & King, W. 1997. "Some Research Perspectives on Entrepreneurship Education, Enterprise Education, and Education for Small Business Management: A Ten Year Literature Review." *International Small Business Journal*, April/June: 56-77.
- Greene, P.G., Hart, M.M., Gatewood, E.J., Brush, C.G., & Carter, N.M. 2003. "Women Entrepreneurs: Moving Front and Center: An Overview of Research and Theory." *Coleman White Paper Series*, www.usasbe.org.
- Gundry, L.K. & Welsch, H.P. 2001. "The Ambitious Entrepreneur: High Growth Strategies of Women-Owned Enterprises." *Journal of Business Venturing* 16(5): 453-470.
- Hills, G.E. 1988. "Variations in University Entrepreneurship Education: An Empirical Study of an Evolving Field." *Journal of Business Venturing*, 3: 109-122.
- Hitt, M.A., Ireland, R.D., Camp, S.M., & Sexton, D.L. 2001. "Strategic Entrepreneurship: Entrepreneurial Strategies for Wealth Creation." *Strategic Management Journal* (special issue): 22(6): 479-492.
- Hornaday, J.A. 1982. "Research about Living Entrepreneurs." *Encyclopedia of Entrepreneurship*, ed. Calvin Kent, Donald Sexton, and Karl Vesper (Englewood Cliffs, NJ: Prentice Hall): 21-22.
- Ireland, R.D. & Hitt, M.A. 1999. "Achieving and Maintaining Strategic Competitiveness in the Twenty-First Century: The Role of Strategic Leadership." *Academy of Management Executive* (January): 43-57.
- Katz, J.A. 2003. "The Chronology and Intellectual Trajectory of American Entrepreneurship Education." *Journal of Business Venturing* 18(2): 283-300.

- Kent, C.A. 1990. "Entrepreneurship Education at the Collegiate Level: A Synopsis and Evaluation." In C.A. Kent (Ed.) *Entrepreneurship Education*, pp. 111-122. New York: Quorum Books.
- Kickul, J. & Gundry, L.K. 2002. "Prospecting for Strategic Advantage: The Proactive Entrepreneurial Personality and Small Firm Innovation." *Journal of Small Business Management* 40(2): 85-97.
- Klatt, L.A. 1988. A Study of Small Business/Entrepreneurial Education in Colleges and Universities." *The Journal of Private Enterprise*, 4(Fall): 103-108.
- Kuratko, D.F. 1996. "Risk, Challenge & Innovation: The Entrepreneurial Experience at Ball State University." *Mid-American Journal of Business*, 11(2): 43-48.
- Kuratko, D.F. & Hornsby, J.S. 1996. "Developing Entrepreneurial Leadership in Contemporary Organizations." *Journal of Management Systems* 17-27.
- Kuratko, D.F., Ireland, R.D., & Hornsby, J.S. 2001. "Improving Firm Performance Through Entrepreneurial Actions: Acordia's Corporate Entrepreneurship Strategy." *Academy of Management Executive* 15(4): 60-71.
- Kuratko, D.F. & Hodgetts, R.M. 2004. *Entrepreneurship: Theory, Process, Practice* (Mason, OH; South-Western Publishers).
- Kuratko, D.F. & Welsch H.P. 2004. *Strategic Entrepreneurial Growth* 2nd ed.(Mason, OH: South-Western).
- McDougall, P.P. & Oviatt, B.M. 2003. "Some Fundamental Issues in International Entrepreneurship." *Coleman White Paper Series*, www.usasbe.org.
- McGrath, R.G., MacMillan, I.C., & Scheinbert, S. 1992. "Elitist, Risk Takers and Rugged Individualists? An Exploratory Analysis of Cultural Differences between Entrepreneurs and Non-entrepreneurs." *Journal of Business Venturing* 115-136.
- McMullan, W.E. & Long, W.A. 1987. "Entrepreneurship Education in the Nineties." *Journal of Business Venturing*, 2: 261-275.
- Meyer, G.D. 2001. "Major Unresolved Issues and Opportunities in Entrepreneurship Education." *Coleman White Paper* (USASBE National Conference, February 2001).
- Mitchell, R.K. & Chesteen, S.A. 1995. "Enhancing Entrepreneurial Expertise: Experiential Pedagogy and the New Venture Expert Script." *Simulation and Gaming*, 26(3): 288-306.
- Morris, M.H. & Kuratko, D.F. 2002. *Corporate Entrepreneurship*. Mason, OH: South-Western College Publishers.

- Peng, M.W. 2001. "How Entrepreneurs Create Wealth in Transition Economies." *Academy of Management Executive* 15(1): 95-110.
- Plaschka, G.R. & Welsch, H.P. 1990. "Emerging Structures in Entrepreneurship Education: Curricula Designs and Strategies." *Entrepreneurship Theory and Practice*, 14(3): 55-71.
- Reynolds, P.D., Hay, M. & Camp, S.M., 1999. *Global Entrepreneurship Monitor* (Kauffman Center for Entrepreneurial Leadership).
- Reynolds, P.D., Camp, S.M., Bygrave, W.D., Autio, E., & Hay, M. 2001. *Global Entrepreneurship Monitor* (Kauffman Center for Entrepreneurial Leadership).
- Robinson, P. & Hayes, M. 1991. "Entrepreneurship Education in America's Major Universities." *Entrepreneurship Theory and Practice*, 15(3): 41-52.
- Ronstadt, R. 1987. "The Educated Entrepreneurs: A New Era of Entrepreneurial Education is Beginning." *American Journal of Small Business*, 11(4): 37-53.
- Ronstadt, R. 1990. "The Educated Entrepreneurs: A New Era of Entrepreneurial Education is Beginning." In C.A. Kent (Ed.) *Entrepreneurship Education*, pp. 69-88, New York: Quorum Books.
- Scott, M.G. & Twomey, D.F. 1998. "The Long Term Supply of Entrepreneurs: Student's Career Aspirations in Relation to Entrepreneurship." *Journal of Small Business Management*, 26(4): 5-13.
- Sexton, D.L. & Upton, N.E. 1984. "Entrepreneurship Education: Suggestions for Increasing Effectiveness." *Journal of Small Business Management*, 22(4): 18-25.
- Sexton, D.L. & Upton, N.E. 1987. "Evaluation of an Innovative Approach to Teaching Entrepreneurship." *Journal of Small Business Management*, 25(1): 35-43.
- Shepherd, D.A. & Zacharakis, A. 2001. "Speed to Initial Public Offering of VC-Backed Companies." *Entrepreneurship Theory and Practice* 25(3): 59-69.
- Shepherd, D.A. & Zacharakis, A. 2002. "Venture Capitalists' Expertise: A Call for Research into Decision Aids and Cognitive Feedback." *Journal of Business Venturing* 17(1): 1-20.
- Small Business Administration. 1998. "The New American Revolution: The Role and Impact of Small Firms" (Washington, D.C., U.S. Small Business Administration, Office of Economic Research.)
- Sobel R. 1974. *The Entrepreneurs: Explorations within the American Business Tradition* (New York: Weybright and Talley,).

- Solomon, G.T. 1988. "Small Business Management and Entrepreneurial Education in America: A National Survey Overview." *Journal of Private Enterprise*, November: 109-118.
- Solomon, G.T. & Fernald, L.W., Jr. 1991. "Trends in Small Business Management and Entrepreneurship Education in the United States." *Entrepreneurship Theory and Practice*, 15: 25-39.
- Solomon, G.T., Weaver, K.M., & Fernald, L.W., Jr. 1994. "Pedagogical Methods of Teaching Entrepreneurship: An Historical Perspective." *Gaming and Simulation*, 25(3): 338-253.
- Solomon, G.T., Duffy, S., & Tarabishy, A. 2002. "The State of Entrepreneurship Education in the United States: A Nationwide Survey and Analysis." *International Journal of Entrepreneurship Education*, 1(1): 65-86.
- Stevenson, H.H. 2000. "Why Entrepreneurship Has Won!" *Coleman White Paper* (USASBE National Conference, February 2000).
- Stewart, W.H., Watson, W.E., Carland, J.C., & Carland, J.W. 1999. "A Productivity for Entrepreneurship: A Comparison of Entrepreneurs, Small Business Owners and Corporate Managers." *Journal of Business Venturing* (February): 189-214.
- Stolze, W.J. 1992. *Startup: An Entrepreneur's Guide to Launching and Managing a New Venture* (Hawthorne, NJ: Career Press).
- Tan, J. 2001. "Innovation and Risk-Taking in a Transitional Economy: A Comparative Study of Chinese Managers and Entrepreneurs." *Journal of Business Venturing* 16(4): 359-376.
- The Classroom of the Future, Newsweek, pp. 60-68, October 22, 2001.
- Timmons, J.A. 2002. *New Venture Creation*, 6th ed. (Homewood, IL: Irwin).
- Torrence, R.W. 1992. *In the Owner's Chair* (Englewood Cliffs, NJ: Prentice-Hall).
- Tulgan, B. 1999. "Generation X: The Future is Now." *Entrepreneur of the Year Magazine*, Fall: 42.
- Upton, N., Teal, E.J., & Felan, J.T. 2001. "Strategic and Business Planning Practices of Fast-Growing Family Firms." *Journal of Small Business Management* 39(4): 60-72.
- Van Clouse, G.H. 1990. "A Controlled Experiment Relating Entrepreneurial Education to Student's Start-Up Decisions." *Journal of Small Business Management*, 28(2): 45-53.
- Vesper, K.H. 1986. "New Developments in Entrepreneurship Education." In D.L. Sexton & R.W. Smilor (Eds.), *The Art and Science of Entrepreneurship*, pp. 379-387. Cambridge, MA: Ballinger.

- Vesper, K.H. and McMullan, W.E. 1988. "Entrepreneurship: Today Courses, Tomorrow Degrees?" *Entrepreneurship Theory and Practice*, 13(1): 7-13.
- Vesper, K.H. & Gartner, W.B. 1997. "Measuring Progress in Entrepreneurship Education." *Journal of Business Venturing* May: 403-421.
- Vesper, K.H. 1999. "Unfinished Business (Entrepreneurship) of the 20th Century" *Coleman White Paper* (USASBE National Conference, January 1999).
- Vesper, K.H. & Gartner, W.B. 1999. *University Entrepreneurship Programs* (Lloyd Greif Center for Entrepreneurial Studies, University of Southern California).
- Wawro, T. 2000. *Radicals and Visionaries: The True Life Stories Behind the Entrepreneurs Revolutionized the 20th Century* (Irvine, CA: Entrepreneur Media).
- Westhead, P., Wright, M., & Ucbasaran, D. 2001. "The Internationalization of New and Small Firms: A Resource-Based View." *Journal of Business Venturing* 16(4): 333-358.
- Zahra, S.A., Kuratko, D.F., & Jennings, D.F. 1999. "Corporate Entrepreneurship and Wealth Creation: Contemporary and Emerging Perspectives." *Entrepreneurship Theory and Practice* 24(2): 5-9.
- Zahra, S.A., Hayton, J., Marcel, J., & O'Neill, H. 2001. "Fostering Entrepreneurship During International Expansion: Managing Key Challenges." *European Management Journal* 19(4): 359-369.
- Zeithaml, C.P. & Rice, G.H. 1987. "Entrepreneurship/Small Business Education in American Universities." *Journal of Small Business Management*, 25(1): 44-50.

Here are five emerging trends for 21st-century classrooms. 1) App Innovation and Gamification. As a result of the recent explosion in education-related apps, educators can decipher students' interests, academic passions and "trouble spots" more readily and in real-time to differentiate and fine-tune instruction. New applications are making it easier for classroom teachers to be both innovative and interactive, and this trend is expected to grow exponentially in the coming years. From Google Docs to interactive whiteboards to new applications that create quizzes and activities, this is an exciting time for collaborative learning in education. Kahoot is one new application worth highlighting. Entrepreneurs. Entrepreneurship. Challenges and Opportunities in the 21st Century. between the 18th and 20th of May 2017. New forms of entrepreneurship emerged in the past decade, such as corporate or social entrepreneurship, which challenge traditional ways of doing business. Entrepreneurship and education play a role in enhancing the country's economic state. Entrepreneurship helps the economy by providing job opportunities. The lack of job opportunities has caused unemployment rates to increase tremendously throughout the years making the development rate of a country slow down. One way for the economy to improve is by providing jobs for the unemployed. With technology improving day by day, the need for human labor decreases over time, this is where; CONTINUE READING. View PDF. Entrepreneurship Education: Emerging trends and challenges for the 21st century.