
TEACHING ENTREPRENEURSHIP IN ACTION: USING EBAY AS AN EDUCATIONAL TOOL

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ABSTRACT

The purpose of this paper is to present readers of the Journal of Entrepreneurship Education a different angle on how to teach entrepreneurship. Entrepreneurship education has received a lot of attention lately as many universities added either entrepreneurship classes or an entrepreneurship major at the undergraduate, graduate, and post graduate level. However, conflicting ways on how and what needs to be taught in such classes have emerged. After reviewing the different approaches used to teach entrepreneurship, we propose a new model on how one can teach entrepreneurship and test its effectiveness. In a pre-test post-test study, we analyzed the change in Carland Entrepreneurship Index score of entrepreneurship students engaged in an entrepreneurial activity using Ebay. The result of the analysis showed some significant changes in students score, from -5 points to +11 points with an absolute average change of 4 points (12% change) .

Keyword: Entrepreneurship, Education, Engage Learning, C.E.I.

INTRODUCTION

The concept of entrepreneurship has been around for a long time, yet, entrepreneurship education is only a recent addition to university curriculum. Indeed, the entrepreneurship concept has recently been a major focus in Higher Education Institutions (HEI) all over the world. In the US and UK, entrepreneurship classes are increasingly offered to students as part of their undergraduate and graduate choice in curriculum (Jack & Anderson, 1999; Morris et al., 2001; Klappa, 2004). Entrepreneurship as a major has been available in HEIs in the US since the early 1980s (Hills, 1998). Morris et al. found that the number of business schools in the US providing classes in entrepreneurship or new venture creation grew from roughly 25 in 1980 to over 700 by 2000. Bennett (2006) also reported a major growth in master's level provision of entrepreneurship programs. Many universities now offer entire undergraduate, graduate and even doctoral degrees in entrepreneurship or business enterprise (Adcroft, Wills, & Dhaliwal, 2004). Furthermore, a Kauffman study by Chaney and Libecap in 2000 also report that growth in entrepreneurship education offering: "Whereas 15 years ago only a handful of schools offered courses in entrepreneurship, today more than 1500 colleges and university offer some form of

entrepreneurship training...and more than 270 endowed positions in entrepreneurship, an increase of 120 percent in just the last five years.” (Chaney and Libecap, 2000, page 1). As far as graduate program are concerned, the Entrepreneur journal published a ranking of the top 25 master level program, with more than 12,000 students enrolled in master level program in just these top 25 schools. Likewise, a search of the AACSB web site showed that there is 118 AACSB accredited schools with an undergraduate degree in entrepreneurship (108 in the U.S.), 62 Master degrees (57 in the U.S.), and 5 doctoral programs (4 in the U.S. and 1 in Canada). As a result of this expansion, two major schools of thought on how to teach entrepreneurship emerged: a skill based approach or an aptitude based method. Each method has its advantages and drawbacks; however they are not mutually exclusive. Hence, after reviewing both approaches, we describe an engaged learning exercise that aims to use both methods to teach undergraduate entrepreneurship students and we test its effectiveness in developing these students.

LITERATURE REVIEW

This increase in entrepreneurial education reflects the economic importance of entrepreneurial activities. Indeed, entrepreneurship has been recognized as an important part of the economy due to its macro- and micro-level effect (Bruyat & Julien, 2000; Henry, Hill, & Leitch, 2003; Carland & Carland, 2010). It is essential to giving birth to new ideas, creating new enterprises and jobs, and nurturing the economy as a whole (Hisrich & O’Cinneide, 1985). However, the word entrepreneurship means different things to different people (Sexton & Bowman, 1984; Hills, 1988; Deamer & Earle, 2004). There is no single theory of entrepreneurship, and the research conducted in the field has broached different themes: theory, types of entrepreneurs, the entrepreneurial process, organizational forms, the external environment, and outcomes (Ucbasaran, Westhead, & Wright, 2001; Heinonen & Poikkijoki, 2006).

According to Schumpeter (1934, 1942), the entrepreneur tears down the existing economic order and replaces it with a new order through a process of identifying opportunities, creatively breaking patterns, taking and managing risk, and organizing and coordinating resources (Landstrom, 1998; Gibb, 2002). Therefore, entrepreneurship involves bringing together all factors of production (Pittaway, 2005); meaning that anyone who initiates and manages a new venture is, *ipso facto*, an entrepreneur.

Another stream of research advances that an entrepreneur can be quite distinct from an owner-manager (Sexton & Bowman, 1984; Morris et al., 2001; Pittaway, 2005). Indeed, the concept of intrapreneurs-- entrepreneurs within an existing organization, regardless of the size of the organization-- refers to emergent intentions and behaviors that deviate from the customary way of doing business (Heinonen & Poikkijoki, 2006). This concept creates another set of entrepreneurs different from the one developed by Schumpeter’s theory expressed above.

Due to that lack of a unifying theory of entrepreneurship, Sexton and Bowman (1984) complained that “the content of a typical entrepreneurship course varies according to the teacher’s personal preferences as to definition and scope.” Furthermore, Gorman and Hanlon’s (1997) literature review of entrepreneurship education noted very little uniformity among the courses offered. This issue is confirmed by Shane and Venkataraman (2000), who found wide variation in course content. They advance that the reason for such variety is rooted in the absence of a clear consensus on the definition of entrepreneurship and the lack of generally accepted paradigms or cohesive theoretical frameworks in the entrepreneurship education area. Moreover, Carland and Carland (2010) realized that while the growth in entrepreneurial programs is undeniable, it is far from ubiquitous as designing and executing an entrepreneurship program is extremely challenging.

Another issue in entrepreneurship education comes from the relationship that exists between the scholar and the entrepreneurship concept. According to Bechard and Gregoire (2005), who conducted a content analysis of entrepreneurship education articles, there are five major obstacles for scholars “considering the educational implications of their research”:

1. A strong focus on theoretical development rather than educational development.
2. A strong tendency to consider education related projects as less legitimate.
3. A very limited focus on pedagogy in doctoral training.
4. Very few grants available for educational research.
5. Few entrepreneurial scholars are interested/rewarded for pedagogical innovation.

Even with these difficulties, some advances have been made in entrepreneurship education and tools have been developed to enhance the teaching of entrepreneurship. This led to the creation of two major schools of thought in entrepreneurship education: skills-based approach and aptitude-based approach (Bennett, 2006).

The first approach is based on the skill set needed for entrepreneurs. Skills-based programs seek to teach students the mechanics of running their own business. They tend to be “highly structured, consensus-oriented and unstressful” (Sexton & Bowman, 1984, p. 21) and usually involve instruction on how to raise finances, how to choose one’s location, taxation, employment, legal requirements, entry level book-keeping, and other basic instructions.

Teaching methods usually include case studies, lectures, and assigned reading intended to develop the student’s critical judgment and capacity to digest, understand, and analyze information (Collinson & Quinn, 2002; Davies, Hides, & Powell, 2002; Ladzani & Van Vuuren, 2002). Assessment and coursework typically comprises written reports and the development of a business plan (Hills, 1988). Courses of this nature are said to be popular because enrollees frequently desire practical, highly specific, and “hands on” information about small business management issues (Collinson & Quinn, 2002; Ladzani & Van Vuuren, 2002).

Hills' (1988) survey of entrepreneurship education programs in universities in the US found that instruction in small business management processes was the primary activity of most courses. An important justification for a university deciding to run this kind of program is the substantial body of evidence that exists suggesting that new businesses rarely fail because their owners lack innovation, self-confidence, imagination, etc.; but mainly in consequence of their owners' ignorance of management, marketing, finance, budgetary control, employee recruitment, and other aspects of personnel administration (Hambrick & D'Aveni, 1988; Jansen & Van Wees, 1994; Davies et al., 2002, Ibrahim & Soufani, 2002; Peterman & Kennedy, 2003; Keogh & Gallaway, 2004). According to the skills-training approach, entrepreneurs are "born" entrepreneurs, and entrepreneurship education should help entrepreneurs in supporting skills like marketing and management.

The second approach described by Bennett (2006) is an attitude development approach. That attitude development approach emerged from the criticism of the skill training methodology. Some scholars view the skills training approach as "passive", "mechanistic", and contrasting "with the reality of the entrepreneur operating with intuition and limited information under acute time pressure" (Henderson & Robertson, 1999, p. 238). Rather than focusing on a "best practice" way, critics suggest that entrepreneurial education should try to "inculcate the necessary attitudes, values, and psychological sets" of the successful entrepreneur (Curran & Stanworth, 1989, p. 13), and develop appropriate personal attributes such as innovativeness, the willingness to take risks, to fail and start afresh, creativity, and determination and self-direction (Garavan & O'Conneide, 1994; Jansen & Van Wees, 1994; Hynes, 1996; Engelen, 2002; Gibb, 2002; Deamer & Earle, 2004).

Contrary to skills-based approach supporters, advocates of the attribute development approach to entrepreneurship education advance that entrepreneurship is a "learned competency" rather than an inherited predisposition or cultural trait (Etzkowitz, 2003, p. 326). As mentioned before, the skills-training approach embraces the view that entrepreneurs are "born not made", i.e. that successful entrepreneurs deviate from "normal" small business owner-managers in terms of having been born with exceptional personalities that impel them towards innovative and highly creative commercial behavior (Bennett, 2006). The counter argument to the "born not made" hypothesis is that many entrepreneurial aptitudes and attributes are in fact acquired experientially (Haynes, 2003). Hence, because education is part of a person's life experience it follows that entrepreneurship education can enhance an individual's capacities for innovative behavior, creativity, flexibility, self-direction, and the ability to respond to widely different situations (Bannock, 1981; Garavan & O'Conneide, 1994; Rauch & Friese, 2000; Collinson & Quinn, 2002; Walton, 2003). In other words, life experience (including relevant educational experience) can itself engender and encourage innovativeness, self-determination, imaginative problem solving, and so on (Haynes). According to this line of thought, entrepreneurship education should be designed and implemented in ways that nurture and reward innovation,

creativity, flexibility, autonomy, self-direction, and the capacity to respond to widely differing situations (Bennett).

Research has shown that active learning is more appropriate for nurturing entrepreneurial attributes than passive pedagogical methods (Garavan & O’Cinneide, 1994) and that active learning is positively correlated with learning, entrepreneurial intention and interest (Shariff, Hasan, Mohamad, & Jussoff, 2010). The reflective teaching techniques used in the skills-based approach (e.g. lectures, hand-out, required readings, programmed instruction and content-oriented examination) help students to acquire knowledge about the mechanics of running a business but, according to Garavan and O’Cinneide it ignores the complexities of the environment in which entrepreneurs actually operate.

In response to such criticism, tools were developed for the skills-based approach that enhances classroom education in entrepreneurship, such as computer simulation and problems-based learning exercises. The main goal of such tools was to try to mimic what happens in the real world in order to better prepare students. However, even if these tools have been proven effective and useful (Tan & Frank Ng, 2006), they face a major criticism: simulation and problems are static. Moreover, these methods replicate just a few facets of the complexities of the environment in which entrepreneurs act. For instance, a computer simulation cannot take into consideration a student/entrepreneur’s ability to convince someone through his or her communication skills. Also, the computer simulation offers only a limited amount of choices to pick from and will hinder one’s imagination and ability to solve a problem.

The question now becomes: how can we truly use real life situations in the classroom? How can we blend the mechanics and the instinct necessary to become a successful entrepreneur? Starting a business might be the best way to learn how to run a business; however, that is a near impossible task for students and scholars alike.

COMBINING BOTH METHODS: A PROPOSED ENGAGE LEARNING EXERCISE

In order to solve the issue discussed above, a new path was used for students to practice their entrepreneurial skills. In order for students to be as close to the real world as possible, it was decided to let them interact with it. This particular assignment required students to purchase items from garage sales or auctions and then list these items on eBay in order to generate a profit.

By doing so, students had to invest their own money into the venture. Like real entrepreneurs they had to take ownership of the items and pay for them (equivalent to stocking with cash payment). They also had to negotiate prices with real people, which necessitated excellent communication skills. Research skills were also put to the test: not everything found in garage sale can be sold for a profit on e-Bay. Students needed to know what to look for in order to generate profit (finding opportunity). Creativity skills could also be used in the eBay listing in order to attract more bidders and achieve a higher profit.

In addition to the developments mentioned above, students also learned some valuable lessons in time management (when to find the best items at a garage sale, when to list and end the auction), accounting (keeping track of their costs), customer service (answering questions about their items), and shipping and handling (how much to charge, where to find packaging material, who to use for shipment).

As a result of that exercise, students have been able to not only develop their business skills but also their entrepreneurial attributes.

EFFECTIVENESS OF PROPOSED EXERCISE

Research Method

In order to measure the effectiveness of the exercise, the Carland Entrepreneurship Index (CEI) (Carland and Carland, 1997, see Appendix A) was used. The CEI is a 33 item questionnaire that measures one's entrepreneurial ambition. Respondents can score from 0 to 33, with 0 representing the lowest possible score, indicating that the respondent is low in entrepreneurial aptitude.

We used a convenience sample of students who self-selected into an elective entrepreneurship class offered at a small faith-based, liberal art college located in the Midwest. Their average age was in the low 20s, and there was 7 male and 5 female students enrolled.

The students were tested before the beginning of their entrepreneurship class and retested at the end of the semester. Table 1 presents the measurement recorded of these tests and the change between the two tests.

Student	Pre Test	Post Test	Change
A	26	23	-3
B	25	20	-5
C	24	26	+2
D	24	27	+3
E	22	21	-1
F	20	21	+1
G	19	20	+1
H	17	28	+11
I	16	24	+8
J	16	23	+7
K	15	14	-1
L	15	20	+5

Findings

As table 1 indicates, there was some significant change in the student scores from the pretest to the posttest. While five students remained close to their original score (+/- 2 points), seven had sensible change, one of them increasing his or her score by 11 points. Overall, the absolute average change was 4 points, which represents a 12% change in their overall score.

A paired samples test was conducted and the results indicated that the overall change for the sample had a p-value of .115 ($t=-1.714$, 11 degrees of freedom), which for such a small sample ($N=12$) can be considered slightly significant.

Of the seven students with high difference in scoring, five changed positively while the other two scored lower on the posttest. This seems to indicate that an entrepreneurship class can lower one's entrepreneurial attitude.

Finally, Table 2 shows that it is possible for students to generate a substantial amount of money in a short period of time (the exercise was conducted in a five-week period). Student "I" focused his or her efforts on video games and items with high appeal and multiplied his or her investment by over 300% after all fees were paid.

Item	Cost	Sold	Gain
Rayman 2 (N64 game)	\$0.50	\$7.20	\$6.70
Newsboys: Shine The Hits CD	\$0.50	\$7.28	\$6.78
Harley Davidson Motorcycle Seat	\$20.00	\$98.35	\$78.35
Star Wars: Knights of the Old Republic	\$0.50	together for	
Madden NFL 2005	\$0.50	\$25.50	\$24.50
Tom Clancy's Ghost Recon	\$0.50	\$6.75	\$6.25
ESPN NFL 2K5	\$0.50	\$5.75	\$5.25
Unreal Championship			
Counter Strike	\$0.50		
Brute Force	\$0.50	4 games together for	
NFL Blitz 20-03	\$0.50	\$27.25	\$25.25
NFL Street	\$0.50	\$5.50	\$5.00
NFL Blitz: Pro	\$0.50	\$9.75	\$9.25
Madden NFL 2004	\$0.50	\$7.01	\$6.51
International Business book	\$20.00	\$51.59	\$31.59
Practical Financial Management book	\$15.00	\$39.50	\$24.50
Sociology book	\$1.00	\$9.00	\$8.00
Total	\$62.50	\$300.43	\$237.93

Limitations

As with any research, limitation on the generalization of the findings exists. For instance, we used a small, convenient, sample of students for our research. With such a small sample (12 students) we have to be careful about what we learn from the research. Our findings show a slightly significant change in the entrepreneurial score of our sample, which seems to indicate that using both the skill based approach and the attitude based methodologies have an impact on student's CEI score. However, the validity of our results can be questioned by the size of our sample and further research will need to be done in order to solidify our results.

Discussion

The goal of our research was to conduct an exploratory experiment to see if the research instrument and idea was productive. The results we obtained indicate that our research seems to be worthwhile.

First of all, we found that entrepreneurial education had an impact on entrepreneurial score. However, in order to establish the reliability and validity of our research, we will need to replicate our research with a larger sample. Hence, we would encourage our fellow JEE readers to use our proposed exercise to develop convergent validity of our results.

The skill set approach, focusing on how to raise finance, selecting location, taxation, business formulation, and accounting among its major subjects, is said to be popular among students as it seems as an "hands on" learning about small business creation. Simultaneously, this approach is also criticized as passive and mechanistic and said to be out of touch with reality. On the other hand, the attitude based approach focuses on developing personal attributes like the willingness to take risk and the ability to overcome failure, but is said to be difficult to organize. The value of our experiment is that it combines both methodologies to educate students in entrepreneurship. By forcing the students to interact with elements outside the classroom, i.e. independent sellers (garage sale vendors) rather than using a computer or a classmate to negotiate, it introduces "real life" features where the aptitude based approach can enhance student learning. Furthermore, by having the students to take care of their accounting and finances, it also uses the strength of the skill based methodology. We strongly believe that these two methodologies are not mutually exclusive, that there is merit in each methodology, and that combining both approaches will be beneficial to entrepreneurship students.

Another of our findings was the fact that entrepreneurial education can yield a negative outcome. Indeed, at least one student experienced a decrease in its entrepreneurial score (up to -5), which would show that learning about entrepreneurship can decrease one's interest about creating their own business. This, in itself is not a bad outcome, knowing what to expect, experiencing the amount of work that needs to be provided to successfully start a business, basically removing the "romantic" view of the entrepreneur (little work for huge reward) can be

an “eye opening” event that could prevent someone to start an entrepreneurial activity when they are not suited/ready for it.

CONCLUSIONS

The skill-set approach seeks to enhance future entrepreneurs by developing the entrepreneur’s skills in running their own business, while the attitude development approach tries to enhance the entrepreneur’s entrepreneurial aptitudes and attributes. Both approaches can bring some value to burgeoning entrepreneurs. As the results of this study show, these two methods do not have to be mutually exclusive; it is possible to integrate both the skills and the attribute approach in entrepreneurship education.

Thanks to the emergence of new methods of running a business, especially with e-commerce, it is now possible to join together real life situations and entrepreneurial education. We can not only teach the foundation skills in marketing, management, finance, and accounting that will be necessary to run and maintain a successful business, but we can also nurture entrepreneurial aptitudes by moving the scope of the instruction out of the classroom and bringing live, random input from real customers. By bridging together these two approaches, we can enhance the classroom experience that students in entrepreneurship are seeking while enrolling in such classes. With such an engaged learning experiment, every student will be able to find some elements of the educational process to help them in their entrepreneurial endeavors.

Finally, by introducing real money into the process, students were much more interested in the outcome of their work than the regular pursuit of a grade, and comments received in the post analysis phase indicated that students had enjoyed the competition with their classmates and had learned a lot about entrepreneurship.

REFERENCES

- Adcroft, A., Wills, A., & Dhaliwal, S., (2004). Missing the point? Management education and entrepreneurship, *Management Decision*, 42(3), 512-521
- Bannock, G., (1981). *The Economics of Small Firms*, Basil Blackwell, Oxford.
- Bechar, J. P., & Gregoire, D., (2005). Entrepreneurship education research re-visited: the case of higher education, *Academy of Management Learning and Education*, 4(1), 22-43.
- Bennett, R., (2006). Business lecturers’ perceptions of the nature of entrepreneurship, *International Journal of Entrepreneurial Behavior & Research*, 12(3), 165-188.
- Bruyat, C., & Julien, P. A., (2000). Defining the field of research in entrepreneurship, *Journal of Business Venturing*, 16(2), 165-180
- Carland, J. W. & Carland, J. C. (1997). Entrepreneurship: An American Dream. *Journal of Business and Entrepreneurship*, 9(1): 33-45
- Carland, J. W. & Carland, J. C. (2010). Entrepreneurship Education: Building for the Future. *Journal of Business and Entrepreneurship*, 22(2): 40-60

- Charney, A. & Libecap, G.D. (2000). Impact of Entrepreneurship Education. Kauffman Research Series (see website below).
- Collinson, E., & Quinn, L., (2002). The impact of collaboration between industry and academia on SME growth, *Journal of Marketing Management*, 18(3/4), 415-435.
- Curran, J., & Stanworth, J., (1989). "Education and training for enterprise: some problems of classification, evaluation, policy and research, *International Small Business Journal*, 7(2), 11-22.
- Davies, J., Hides, M., & Powell, J., (2002). Defining the development needs of entrepreneurs of SMEs, *Education + Training*, 44(8/9), 406-413.
- Deamer, I., & Earle, L., (2004). Searching for entrepreneurship, *Industrial and Commercial Training*, 36(3), 99-103.
- Engelen, E. (2002). How innovative are Dutch immigrant entrepreneurs? Constructing a framework of assessment, *International Journal of Entrepreneurial Behavior & Research*, 8(1/2), 69-92.
- Etzkowitz, H., (2003). The European entrepreneurial university: an alternative to the US model, *Industry and Higher Education*, 17(5), 325-335.
- Garavan, T., & O'Connell, B., (1994). Entrepreneurship and education training programmes: a review and evaluation – part 1, *Journal of European Industrial Training*, 18(8), 3-12.
- Gibb, A. A. (2002). In pursuit of a new 'enterprise' and 'entrepreneurship' paradigm for learning: creative destruction, new values, new ways of doing things and new combinations of knowledge, *International of Management Review*, 4(3), 233-269.
- 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*, 15(3), 56-77.
- Hambrick, D., & D'Aveni, R., (1988). Large corporate failure as downwards spirals, *Administrative Science Quarterly*, 33(1), 1-33.
- Haynes, P. J., (2003). Differences among entrepreneurs: 'Are you experienced?' may be the wrong question, *International Journal of Entrepreneurial Behavior & Research*, 9(3), 111-28.
- Heinonen, J., & Poikkijoki, S. A., (2006). An entrepreneurial-directed approach to entrepreneurship education: mission impossible?, *The Journal of Management Development*, 25(1) 80-94.
- Henderson, R. & Robertson, M., (1999). Who wants to be an entrepreneur? Young adult attitudes to entrepreneurship as a career, *Education + Training*, 41(5), 236-245.
- Henry, C., Hill, F., & Leitch, C., (2003). *Entrepreneurship Education and Training*, Ashgate, Aldershot.
- Hills, G., (1988). Variations in university entrepreneurship education: an empirical study of an evolving field, *Journal of Business Venturing*, 3(2), 109-122
- Hisrich, R. D. & O'Connell, B., (1985). *The Irish Entrepreneur: Characteristics, Problems and Future Success*, University of Limerick, Limerick.
- Hynes, B., (1996). Entrepreneurship education and training: introducing entrepreneurship into non-business disciplines, *Journal of European Industrial Training*, 20(8), 10-17.
- Ibrahim, A. & Soufani, K., (2002). Entrepreneurship education and training in Canada: a critical assessment, *Education + training*, 44(8/9), 421-430.
- Jack, S. L. & Anderson, A. R. (1999). Entrepreneurship education within the enterprise culture: producing reflective practitioners, *International Journal of Entrepreneurial Behavior & Research*, 5(3), 110-125
- Jansen, P. & Van Wees, L. (1994). Conditions for internal entrepreneurship, *Journal of Management Development*, 13(9), 34-51.
- Keogh, W. & Gallaway, L., (2004). Teaching enterprise in vocational disciplines: reflecting on positive experience, *Management Decision*, 42(3/4), 531-542.
- Klappa, R., (2004). Government goals and entrepreneurship education, *Education + Training*, 46(3), 127-138
- Ladzani, W. & Van Vuuren, J., (2002). Entrepreneurship training for emerging SMEs in South Africa, *Journal of Small Business Management*, 40(2), 154-162.

- Landstrom, H., (1998). The roots of entrepreneurship research, paper presented at the RENT XII Conference, Lyon, 26-27 November.
- Morris, M., Kuratko, D., & Schindehutte, M. (2001). Towards integration: understanding integration through frameworks, *International Journal of Entrepreneurship and Innovation*, 2(1), 35-49
- Peterman, N. & Kennedy, J., (2003). Enterprise education: influencing students' perceptions of entrepreneurship, *Entrepreneurship Theory and Practice*, 28(2), 129-145.
- Pittaway, L., (2005). Philosophies in entrepreneurship: A focus on economic theories, *International Journal of Entrepreneurial Behavior & Research*, 11(3), 201-221.
- Rauch, A. & Friese, M., (2000). Psychological approaches to entrepreneurial success: a general model and an overview of findings, in Cooper, C., and Robertson, I., (Eds), *International Review of Industrial Organizational Psychology*, (15), John Wiley & Sons, Chichester, 19-28.
- Schumpeter, J. A., (1934). *The theory of Economic Development*, Harvard University Press, Cambridge, MA.
- Schumpeter, J. A., (1942). *Capitalism, Socialism and Democracy*, Harper & Row, New York, NY.
- Sexton, D. & Bowman, N., (1984). Entrepreneurship education: Suggestions for increasing effectiveness, *Journal of small business management*, 22(2), 18-25.
- Shane, S. & Venkataraman, S., (2000). The promise of entrepreneurship as a field of research, *Academy of Management Review*, 25(1), 217-226.
- Shariff, A., Hasan, N., Mohamad, Z., & Jusoff, K. (2010). The Relationship between Active Teaching and Learning With Graduate's Entrepreneurial Intention and Interest, *Interdisciplinary Journal of Contemporary Research in Business*, 2(1), 283-295.
- Tan, S. S. & Frank Ng, C. K., (2006). A problem-based learning approach to entrepreneurship education, *Education + Training*, 48(6), 416-428.
- Ucbasaran, D., Westhead, P., & Wright, M., (2001). The focus of entrepreneurial research. Contextual and process issues, *Entrepreneurship Theory and Practice*, 25(4), 57-80.
- Walton, A., (2003). The impact of interpersonal factors on creativity, *International Journal of Entrepreneurial Behavior and Research*, 9(4), 146-62.

Website used:

<http://www.entrepreneur.com/topcolleges/index.html>

http://www.unm.edu/~asalazar/Kauffman/Entrep_research/e_ed_grow.pdf

Appendix A: Carland Entrepreneurship Index

1. Please check the box next to the ONE of each pair of statements which comes CLOSEST to representing the way you USUALLY feel.

- Written objectives for this business are crucial
- It's enough to know the general direction you are going

2. Please check the box next to the ONE of each pair of statements which comes CLOSEST to representing the way you USUALLY feel.

- I like to think of myself as a skillful person
- I like to think of myself as a creative person

3. Please check the box next to the ONE of each pair of statements which comes CLOSEST to representing the way you USUALLY feel.

- I wouldn't have started this business if I hadn't been sure that it would succeed
- I'm never sure whether this business will succeed or not

4. Please check the box next to the ONE of each pair of statements which comes CLOSEST to representing the way you USUALLY feel.

- I want this business to grow and become a major force
- The real purpose of this business is to support my family

5. Please check the box next to the ONE of each pair of statements which comes CLOSEST to representing the way you USUALLY feel.

- The most important thing I do for this business is plan
- I am most important in day to day management of this business

6. Please check the box next to the ONE of each pair of statements which comes CLOSEST to representing the way you USUALLY feel.

- I like to approach situations from a sympathetic perspective
- I like to approach situations from an analytical perspective

7. Please check the box next to the ONE of each pair of statements which comes CLOSEST to representing the way you USUALLY feel.

- My primary purpose here is to survive
- I won't rest until we are the best

8. Please check the box next to the ONE of each pair of statements which comes CLOSEST to representing the way you USUALLY feel.

- A plan should be written in order to be effective
- An unwritten plan for development is enough

9. Please check the box next to the ONE of each pair of statements which comes CLOSEST to representing the way you USUALLY feel.

- I probably spend too much time with this business
- I balance my time between this business, family and friends

10. Please check the box next to the ONE of each pair of statements which comes CLOSEST to representing the way you USUALLY feel.

- I tend to let my heart rule my head
- I tend to let my head rule my heart

11. Please check the box next to the ONE of each pair of statements which comes CLOSEST to representing the way you USUALLY feel.

- My priorities include a lot of things outside this business
- One of the most important things in my life is this business

12. Please check the box next to the ONE of each pair of statements which comes CLOSEST to representing the way you USUALLY feel.

- I'm the one who has to do the thinking and planning
- I'm the one who has to get things done

13. Please check the box next to the ONE of each pair of statements which comes CLOSEST to representing the way you USUALLY feel.

- People who work for me, work hard
- People who work for me, like me

14. Please check the box next to the ONE of each pair of statements which comes CLOSEST to representing the way you USUALLY feel.

- I look forward to the day when managing this business is simple
- If managing gets too simple, I'll start another business

15. Please check the box next to the ONE of each pair of statements which comes CLOSEST to representing the way you USUALLY feel.

- I think I am a practical person
- I think I am an imaginative person

16. Please check the box next to the ONE of each pair of statements which comes CLOSEST to representing the way you USUALLY feel.

- The challenge of being successful is as important as the money
- Money, which comes with success is the most important thing

17. Please check the box next to the ONE of each pair of statements which comes CLOSEST to representing the way you USUALLY feel.

- I'm always looking for new ways to do things
- I try to establish set procedures to get things done right

18. Please check the box next to the ONE of each pair of statements which comes CLOSEST to representing the way you USUALLY feel.

- I think it is important to be sympathetic
- I think it is important to be logical

19. Please check the box next to the ONE of each pair of statements which comes CLOSEST to representing the way you USUALLY feel.

- I think that standard operating procedures are crucial
- I enjoy the challenge of invention more than anything else

20. Please check the box next to the ONE of each pair of statements which comes CLOSEST to representing the way you USUALLY feel.

- I spend as much time planning as in running this business
- I spend most of my time running this business

21. Please check the box next to the ONE of each pair of statements which comes CLOSEST to representing the way you USUALLY feel.

- I have found that managing this business falls into a routine
- Nothing around here is ever routine

22. Please check the box next to the ONE of each pair of statements which comes CLOSEST to representing the way you USUALLY feel.

- I prefer people who are realistic
- I prefer people who are imaginative

23. Please check the box next to the ONE of each pair of statements which comes CLOSEST to representing the way you USUALLY feel.

- The difference between competitors is the owner's attitude
- We have some things which we do better than the competitors

24. Please check the box next to the ONE of each pair of statements which comes CLOSEST to representing the way you USUALLY feel.

- My personal objectives revolve around this business
- My real life is outside this business with family and friends

25. Please check the box next to the ONE of each pair of statements which comes CLOSEST to representing the way you USUALLY feel.

- I enjoy the idea of trying to outwit the competition
- If you change too much, you can confuse the customers

26. Please check the box next to the ONE of each pair of statements which comes CLOSEST to representing the way you USUALLY feel.

- The best approach is to avoid risky moves whenever possible
- If you want to outdo the competition you have to take some risks

27. Please check the box next to the ONE of each pair of statements which comes CLOSEST to representing the way you USUALLY feel.

- I hate the idea of having to borrow money
- Borrowing is just another business decision

28. Please check the box next to the ONE of each pair of statements which comes CLOSEST to representing the way you USUALLY feel.

- Quality and service aren't enough. You must have a good image
- A fair price and good quality is all any customer really wants

29. Please check the box next to the ONE of each pair of statements which comes CLOSEST to representing the way you USUALLY feel.

- People think of me as a hard worker
- People think of me as easy to get along with

30. Please check the box next to the ONE of each pair of statements which comes CLOSEST to representing the way you USUALLY feel.

- The only undertakings this business makes are those that are relatively certain
- If you want the business to grow you have to take some risks

31. Please check the box next to the ONE of each pair of statements which comes CLOSEST to representing the way you USUALLY feel.

- The thing I miss most about working for someone else is security
- I don't really miss much about working for someone else

32. Please check the box next to the ONE of each pair of statements which comes CLOSEST to representing the way you USUALLY feel.

- I am concerned about the rights of people who work for me
- I am concerned about the feelings of people who work for me

33. Please check the box next to the ONE of each pair of statements which comes CLOSEST to representing the way you USUALLY feel.

- It is more important to see possibilities in a situation
- It is more important to see things the way they are

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