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Teaching Dispositional Optimism in the Entrepreneurial Classroom

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Abstract. This study demonstrates that dispositional optimism, a key trait found in successful entrepreneurs, can be effectively measured and enhanced in the entrepreneurial classroom. Undergraduate students with an expressed interest in entrepreneurship were given a Life Orientation Test (LOT-R) prior to attending any entrepreneurship classes. Then, over a semester-length course, the students were exposed to lectures, videos, readings, and guest speakers that dealt with the business skills necessary for entrepreneurial success as well as an explicit pedagogy focusing on the psychology of entrepreneurship, including dispositional optimism. A follow-up LOT-R was conducted at the end of the class semester. It revealed that students showed a statistically significant improvement in their dispositional optimism score. This finding has major implications in terms of curriculum design and pedagogical approaches to teaching entrepreneurship.

Keywords: dispositional optimism, entrepreneurs, teaching, classroom.

1. Introduction

Psychologists suggest that when there are impediments to achieving goals, some people will believe that the goals can be achieved (optimists), while others will not (pessimists). They contend that optimism leads to continued efforts to attain the goal, whereas pessimism leads to giving up. Optimism has been defined as a disposition (Scheier and Carver, 1992) and as a malleable state-like construct (Peterson, 2000; Scheinder, 2001; Seligman, 1998). Dispositional optimism, typically classified as a personality trait, is defined as the global generalized tendency to believe that one will experience good versus bad outcomes in life. In short, it is the expectation that good things will be plentiful in the future and bad things, scarce (Scheier and Carver, 1992). Dispositional optimism has been found to be a key trait possessed by successful entrepreneurs (Baron, 2000; Crane and Crane, 2007; Crane and Sohl, 2004). Moreover, many psychologists argue that optimism can be successfully taught and learned (Gillman and Reivich, 2004; Peterson, 2000; Reivich and Shatte, 2002; Seligman, 1998).

However, our review of over 30 entrepreneurship programs in the US and UK as well as examinations of dozens of syllabi from individual entrepreneurship courses revealed there was neither specific mention of the psychology of entrepreneurship nor any teaching modules on the topic of dispositional optimism. Yet, several experts argue that the problem with entrepreneurship programs in colleges and universities is that these educational programs focus exclusively on developing students' business skills, and do not deal with how to develop other traits necessary for entrepreneurial success, including the teaching of dispositional optimism (Roseman and Czetli, 2004). Clearly, if dispositional optimism is an integral component of entrepreneurial success, and if it has been sufficiently proven that optimism can be taught in other settings, then educators involved in entrepreneurship teaching would be remiss not to address this issue. Accordingly, this study was undertaken to determine whether or not dispositional optimism could be taught in an entrepreneurial classroom setting.

2. Entrepreneurship

Entrepreneurship is the process of creating something new with value by devoting the necessary time and effort, assuming the accompanying financial, psychic, and social risks, and receiving the resulting rewards of monetary and personal satisfaction and independence (Hisrich, Peters and Shepherd, 2005). Entrepreneurship is also considered the mindset and process to create and develop economic activity by blending risk-taking, creativity and innovation with sound management within a new or an existing organization. Finally, entrepreneurship is thought of as the dynamic process of creating incremental wealth.

Thousands of new enterprises are started each year in the United States, and new ventures are considered the economic backbone of many other nations. However, starting and operating a new business involves considerable risk. For example, new ventures experience a 70 percent annual failure rate (Hisrich, Peters and Shepherd, 2005). So, what type of person would take such a risk?

3. Entrepreneurs

To the economist, an entrepreneur is one who brings resources, labor, materials, and other assets into combinations that make their value greater than before, and also one who introduces changes, innovations, and a new order (Schumpter, 1934). To a psychologist, the entrepreneur is typically driven by certain forces – the need to obtain or attain something, to experiment, to accomplish, or perhaps to escape the authority of others (Baron, 2000).

Entrepreneurs are found in all professions – medicine, education, law, engineering and psychology. But Lessem (1986) suggests there is no single entrepreneurial type, at least, not psychologically. Timmons (1989), for example, argues that there are a wide variety of characteristics and behaviors that are required by the entrepreneur. These include determination, orientation to goals, internal locus of control, tolerance for ambiguity, calculated risk-taking, learning from failure, and decisiveness. Still, the precise number and types of characteristics and behavior have never been definitively delineated or articulated. Some researchers suggest entrepreneurs possess 19 similar but slightly different attributes (Hornaday, 1982) while others suggest 12 common attributes exist (Gibb, 1990).

In addition to the debate about the characteristics and behaviors of entrepreneurs, there is also much discussion regarding whether or not successful entrepreneurs are born or made. Most experts agree that entrepreneurs possess certain inborn characteristics but, at the same time, almost all agree there are also certain attributes or skills that can be learned (Kirby, 2004; Hisrich, Peters and Shepherd, 2005; Hopkins, 2004; Thornberry, 2003). For example, it has been argued that before there can be entrepreneurship there must be the potential for entrepreneurship (Krueger and Brazeal, 1994). From our contexts we learn our beliefs, attitudes, assumptions, and ways of thinking about the world and we do so from our earliest days to adulthood (Katz, 1992; Scott and Twoney, 1988). Researchers have found that the psychological aspects of the individual, including personality traits, predispose people to entrepreneurial behavior (Bygrave and Hofer, 1991). However, it has also been established that while personality may predispose individuals to entrepreneurial activity, factors in the external environment can impact on this predisposition (Gartner, 1989; Gibb, 1993). An individual's personal values, aspirations, and mode of thinking, for example, is shaped by the external environment including what the individual is taught and how he/she is taught (Timmons and Spinella, 2004).

Still, while most of those attributes and behaviors outlined in the literature are rooted in the psychology of the individual, most entrepreneurship courses focus almost exclusively on teaching business knowledge and discrete business skills. Some key questions for entrepreneurship educators are whether or not the psychology of entrepreneurship is important for entrepreneurial development, and if so, what can be taught? More specifically, for example, can potential entrepreneurs be trained to be more optimistic?

4. Dispositional Optimism

Dispositional optimism as defined in this paper is the global generalized tendency to believe that one will experience good versus bad outcomes in life. Scheier and Carver (1992) have studied dispositional optimism extensively as a personality variable. They suggest an individual with dispositional optimism has an expectation that good things will be plentiful in the future and bad things will be scarce. Scheier and Carver's perspective also entails the notion of goals as desirable values. They argue that virtually all human activity can be viewed in goal terms and an individual's behavior entails the identification and adoption of goals and the regulation of action with regard to the pursuit of such goals. They refer to this approach as a self-regulatory model. For example, optimism enters into self-regulation when people ask themselves about impediments to achieving goals they have adopted. In the face of difficulties, do people believe that goals can be achieved? If so, they are considered optimistic; if not, they are considered pessimistic. Optimism leads to continued efforts to attain the goal, whereas pessimism leads to giving up.

Based on a review of the literature spanning almost twenty-five years, Crane and Crane (2007) concluded that successful entrepreneurs do possess dispositional optimism; that they are goal-oriented individuals; and, importantly, that they persist, or continue to pursue these goals despite impediments and setbacks. This is consistent with Scheier and Carver's (1992) contention that it is the optimist who continues his/her efforts to attain the goal, whereas the pessimist would simply give up in such circumstances. However, a major question remains; is dispositional optimism something that individuals were born with or was it learned along the way? Can, in fact, an individual be trained to be optimistic entrepreneur?

Gillman and Reivich (2004) believe dispositional optimism results from a combination of genetics and environmental factors that predispose a person to think optimistically. Moreover, Seligman (1998) believes almost anyone can learn to be more optimistic. His research with children, using cognitive restructuring methods, has demonstrated that changing how a child thinks will lead to a change in emotions and eventually to a change in behavior. Other cognitive psychologists working with elite athletes and professional executives have also shown that optimism can be taught and learned (Gould, Dieffenbach, and Moffett, 2002; Schinke and Jerome, 2002). Research in human resource development also demonstrates that individuals can be trained to be more optimistic (Luthans and Jensen, 2002).

The Penn Optimism Program at the University of Pennsylvania has clearly shown that children can learn an optimistic style of thinking. Researchers involved in the program argue that optimistic thinking is an activity, like swinging a tennis racket, that can be demonstrated and learned. Children participating in this12-week optimism program were tracked over a two-year period and were shown to have had one-half the depression rate compared to children not participating in the program (Reivich and Shatte, 2002). Finally, Roseman and Czetli (2004) in their recent, book, *Outrageous Optimism: Wisdom for the Entrepreneurial Journey*, make the argument that aspiring entrepreneurs can be taught dispositional optimism.

Yet, there is no real empirical evidence from the entrepreneurial classroom to confirm that dispositional optimism can be taught or enhanced through pedagogical methods. Moreover, there are no educational programs in entrepreneurship known to the authors that include the measurement and enhancement of dispositional optimism as part of their curriculum design. Clearly, if dispositional optimism is an integral component of entrepreneurial success, and if it has been sufficiently proven that optimism can be taught to individuals, then educators and psychologists should seek to discover if dispositional optimism can be effectively taught in a classroom setting.

5. Current Approaches to Teaching Entrepreneurship

There is a natural and continuing debate over the optimal approach to teaching entrepreneurship. Much of that discussion focuses on methodological issues such as the relative effectiveness of traditional teaching models (lectures), business simulations, business cases, workshops, games, experiential or practical training (Lourenco and Jones, 2006). The content of entrepreneurship courses is also regularly debated. Most colleges and universities tend to provide courses on the various types and forms of new companies, entrepreneurial marketing, managing small business operations, business planning, and venture finance. Teaching specific business skills such as problem solving, communications, leadership, negotiation, financial, and time-management tends to be the focus. But, some educators have proposed that content of courses should be expanded to include developing the personal attributes and behaviors important to entrepreneurship (Kirby, 2004). While the new suggested content includes concepts such as social networking skills and creativity, it does not include dispositional optimism (Rae, 1997). Yet, entrepreneurship by its nature involves uncertainty, barriers, and setbacks that the individual must contend with along the entrepreneurial journey. Dispositional optimism may be a valuable asset in such situations.

To date, however, teaching dispositional optimism remains largely excluded from the pedagogical discussion. For example, after examining over 50 entrepreneurship programs in the U.K., researchers found that none dealt with the issue of the psychology of entrepreneurship, specifically dispositional optimism (Hytti and O'Gorman, 2004). Katz (2002) also found that U.S. entrepreneurship courses collectively ignored the psychology of entrepreneurship. This, despite the fact that researchers have indicated that an individual's personal values, attributes and/or traits can affect what is learned from an entrepreneurship course as well as impact on entrepreneurial intent. For example, Zhao, Selbert and Hills (2005) discovered that personal self-efficacy can mediate the effects of perceived learning from entrepreneurship-related courses. Cooper and Lucas (2006) found that even a one-week teaching intensive event influenced the underlying motivations of potential entrepreneurs and created enduring improvements in entrepreneurial self-efficacy. In addition, other research indicates a high correlation between self-efficacy and optimism (Gillman and Reivich, 2004). Therefore, an individual's level of dispositional optimism might also mediate entrepreneurial learning and entrepreneurial initiative (Crane and Crane, 2007). But, there is no empirical research to confirm this assertion. This study was undertaken to help answer this question.

6. Methodology

We administered a Life Orientation Test (LOT-R) prior to students taking their first undergraduate entrepreneurship course at a large, urban university in New England. This introductory course on entrepreneurship provides an overview of the entrepreneurial universe including the nature and scope of entrepreneurship, describes and defines the entrepreneur, examines the type of businesses that can be created by entrepreneurs and outlines the supporting players who assist entrepreneurs in creating and building new enterprises. Typically, the course is a combination of lectures, experiential exercises, guest speakers, and short research papers on topics self-selected by the students. All students – 42 in all – were told that the test was voluntary and that their responses would be completely anonymous. All 42 students successfully completed the instrument.

The LOT-R is the most widely used and the most direct measure of dispositional optimism (Chang, 2001). It has been utilized to effectively measure dispositional optimism in numerous settings including the health care field as well as other work-related settings. For example, using LOT-R instruments, researchers have determined that dispositional optimism can be measured and has been found to be related to both positive physical and psychological outcomes, including health, academic, athletic, and work performance (Brenes et al, 2002; Stajkovic, 2006). In a quick review of its recent application, we found more than 40 studies that have used the LOT-R instrument over the past five years to measure dispositional optimism of individuals.

The LOT-R is a ten-item instrument (Scheier et al, 1994 – also see Appendix A). The LOT-R is based on Scheier and Carver's (1992) definition of optimism and pessimism, which is utilized for the purposes of our study, and thus it is the most direct assessment of these constructs as we have defined them. While the LOT-R is often considered a unidimensional measure of dispositional optimism, Scheier et al (1994) argue that optimism and pessimism can be evaluated independently.

The LOT-R contains six items, three positively worded and three negatively worded, which contribute to the dispositional optimism score (items # 1, 3, 4, 7, 9, 10). There are also four items that are considered fillers (items # 2, 5, 6, 8). The filler items are used to disguise the purpose of the questionnaire and make no contribution to the evaluation. The LOT-R is measured on a five-point Likert scale, ranging from 0 = strongly disagree to 4 = strongly agree. Items number 3, 7 and 9 are reversed scored. The resultant score range on the test is 0-24, with higher scores indicating more dispositional optimism. The LOT-R has been found to have internal consistency (Cronbach's alpha = 0.78) and excellent convergent and discriminant validity (Scheier et al, 1994).

The students were assigned their traditional entrepreneurship texts and course readings. But, in addition to this material, and for the very first time since the course's inception several years ago, students were also assigned readings on positive psychology, books on optimism, and watched videos on the psychology of entrepreneurship. Students also received lectures on the psychology of entrepreneurship, and listened to guest speakers who focused on the psychology of entrepreneurship, in particular the need for dispositional optimism as a trait in order to be successful in business. See Appendix B for a sample of materials used.

7. Results/Findings

The maximum score an individual can achieve on the LOT-R is 24, indicating an extremely high level of dispositional optimism. The overall mean score on the first LOT-R given to the students before their first class on entrepreneurship was 14.3, with a standard deviation of 4.28. This indicates that the overall group was skewed toward dispositional optimism. A follow-up LOT-R test was given at the end of the 15-week class period. The mean score for the class on that test was 17.9, with a standard deviation of 2.80. A statistical t-test revealed that this score was significantly higher than the first score ($p = 0.003$). This appears to demonstrate that the student's dispositional optimism was influenced by the course and its content. In short, there was significant enhancement of the dispositional optimism of individuals in this classroom setting.

While the group, overall, enhanced their dispositional optimism score, there were too few females in the class to determine if there were statistically significant differences between females and males on the first or subsequent test. This is something we intend to examine when we explore this issue further using larger samples since prior research does indicate that males and females might differ in terms of dispositional optimism in certain contexts. Seligman (1998), for example, suggests that levels of dispositional optimism are roughly the same for males and females but gender differences exist when it comes to specific life situations. He argues that men are more optimistic about work while women are more optimistic about their interpersonal lives and less optimistic about work achievement. This issue may need to be further examined since females are now entering business schools at an increasingly higher rate and women are also now more likely to pursue entrepreneurial endeavors.

8. Research Implications and Limitations

This study confirms that dispositional optimism can be taught in the classroom setting through specific pedagogical design and delivery methods. However, this study was exploratory in nature. The sample size was small and the respondent group could have been predisposed or unusually receptive to learning this construct by having self-selected to attend an entrepreneurship class in the first place.

The materials that we used to teach the course were chosen based on our judgment and experience; others might be better at producing a stronger result.

Class exercises designed to break through barriers and handle business setbacks are also in the formative stage as well. In other words, our materials are a work in progress. It is possible that observed scores on the LOT-R instrument might improve as our materials improve.

We must also consider the possibility that some instructors may simply be better at conveying and reinforcing the notion of dispositional optimism so results might be instructor-specific. In fact, some research indicates the students can learn either optimistic or pessimistic thinking styles from teachers (Dweck et al, 1978). Deploying the materials and methods across multiple sections of entrepreneurship courses – with different instructors – and then studying the results could overcome these concerns. This, too, is a current research project already in progress. It is also not clear whether or not the new boost in dispositional optimism measured in this study can be sustained over time. From a long-term perspective, repeated measures would need to be taken over the student's academic and work careers to determine if the observed increase in dispositional optimism continues beyond the initial instruction period. Finally, a larger study can more closely examine the role gender may play in either teaching and/or learning dispositional optimism.

From a normative perspective other issues also need to be explored. Some might question whether or not dispositional optimism should be taught in the first place. In short, the argument against it could be that it might lead to unrealistic optimism and cause students to take unreasonable risks as entrepreneurs. However, others suggest it is not a question of whether or not dispositional optimism should be taught, but rather a question of how best to teach it (Baum, Frese, Baron, 2006). Another issue to consider is whether or not it would be best to integrate the psychology of entrepreneurship into every single entrepreneurship course, or develop a single stand-alone course that deals specifically with this subject matter. An additional consideration could be that instead of integrating the subject matter into standard semester-length courses, offering one or two-week intensive teaching events on this topic before students enroll in any entrepreneurship courses might be a more optimal approach (Cooper and Lucas, 2006). Additionally, one might consider whether or not instructors themselves be given a LOT-R test to determine their ability to deliver such materials using an optimistic thinking style. Finally, instead of bringing in successful entrepreneurs to the classroom as guest speakers to discuss this topic, one might ask if it might be better to allow the students to interact with these successful entrepreneurs in a real-world setting.

Still, notwithstanding these concerns, we remain convinced about both the importance and utility of teaching dispositional optimism to students in the entrepreneurial classroom environment. Our future research may more fully validate the value of such efforts, the optimal pedagogical design and delivery configurations of such efforts, and, in turn, the possibility of it becoming a new imperative for the entrepreneurship academe.

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Appendix A

Life Orientation Test – Revised

Please place the appropriate number, either 0, 1, 2, 3 or 4 on the line next to each statement listed below to indicate the extent you agree or disagree with the statement. Please score each of the following statements as honestly as possible. There are no right or wrong answers.

0 = Strongly Disagree
1 = Disagree
2 = You are neutral about the statement
3 = Agree
4 = Strongly Agree

Remember place the number 0, 1, 2, 3 or 4 on the line next to each statement.

1. In uncertain times, I would expect the best. _____
2. It's easy for me to relax. _____
3. If something can go wrong with me, it will. _____
4. I am always optimistic about my future. _____
5. I enjoy my friends a lot. _____
6. It's important for me to keep busy. _____
7. I hardly ever expect things to go my way. _____
8. I don't get upset too easily. _____
9. I rarely count on good things happening to me. _____
10. Overall, I expect more good things to happen to me than bad. _____

(Source: Scheier et al, 1994)

Appendix B

Sample Materials Used in Teaching Dispositional Optimism in this Study

Required Course Textbook

Lambing & Kuehl. (2007), *Entrepreneurship*. Upper Saddle River: Prentice Hall

Required Readings

Covey, S. (1999), "Success on the far side of failure", *Success*, 16 (1), 3-4.

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Movies

Tucker: The Man and His Dream (1988) Running time: 110 minutes
Trading Places (1983) Running time: 116 minutes

Lecture Topics

Attributes of the Successful Entrepreneur (class lecture)
What you need to Succeed (guest lecture)
It is Ok to Fail (guest lecture)
Imperatives for Venture Success (class lecture)
What do all Great Entrepreneurs Have in Common (class lecture)