

Social Cognitive Theory, Entrepreneurial Self-Efficacy and Entrepreneurial Intentions: Tools to Maximize the Effectiveness of Formal Entrepreneurship Education and Address the Decline in Entrepreneurial Activity¹

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Abstract

The purpose of this paper is to examine existing literature on Social Cognitive Theory, entrepreneurial self-efficacy, and entrepreneurial competencies and intentions, to understand the current state of the field, design a new theoretical framework to help determine the best teaching strategies and identify career counselor competencies and possible contributions to the entrepreneurial education field. Entrepreneurial self-efficacy is proposed as a useful construct to increase the entrepreneurial intentions and competencies of students. Social cognitive theory, self-efficacy, and entrepreneurial self-efficacy are incorporated into an applied theoretical framework to improve the effectiveness of formal entrepreneurship education. Specifically, the model links the four sources of self-efficacy with entrepreneurial self-efficacy and entrepreneurial intentions; which lead to effective entrepreneurial education program outcomes.

Keywords: self-efficacy, entrepreneurship, education, career counselors

Resumen

El objetivo de este escrito es examinar la literatura existente sobre la Teoría Social Cognoscitiva, la autoeficacia emprendedora, y las competencias e intenciones emprendedoras, entender el estado corriente del campo, diseñar un nuevo marco teórico para ayudar determinar las mejores estrategias de enseñanza e identificar las competencias del consejero de carrera y posibles contribuciones al campo de la educación emprendedora. La autoeficacia emprendedora se propone como un constructo para aumentar las intenciones emprendedoras y las competencias de los estudiantes. La teoría social cognoscitiva, la autoeficacia, y la autoeficacia emprendedora son incorporados en un marco teórico para aplicado para mejorar la eficacia de la educación emprendedora formal. Específicamente, el enlace de las cuatro fuentes de la autoeficacia con la autoeficacia emprendedora e intenciones emprendedoras; las cuales conducen a resultados efectivos de un programa de educación emprendedora.

Palabras clave: autoeficacia, emprendedor, educación, consejeros de carrera

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Blanchflower (2000) indicates that entrepreneurship is an important factor for the development of an economy. Hindle & Rushworth (2002) established that entrepreneurship is a driver of economic growth and national prosperity and the U.S. Bureau of Labor Statistics (BLS) states on its webpage that “entrepreneurship plays a vital role in the growth of the U.S. economy” (U.S. Bureau of Labor Statistics, 2012). BLS is the primary source for information on U.S. labor markets as well as the federal government’s data-collection agency on new businesses and job creation.

Despite the important role that entrepreneurship plays in a nation’s economy, data from the BLS’s Business Employment Dynamics (BED) program reveals that the number of new business establishments in March 2010 was lower than any other year (U.S. Bureau of Labor Statistics, 2012). BED data also shows that the number of jobs created by establishments in the last year has decreased. These findings concern and require immediate action in order to help stimulate the U.S. economy. The urgency to educate young people and train them in entrepreneurship is evident, encouraging them to pursue an entrepreneurial career to increased economy efficiency, bring innovation to market, create new job opportunities, and sustain employment levels (Carswell, 2001). This literature review stems from the need to address the decline of entrepreneurship activity maximizing the effectiveness of formal entrepreneurship education. The existing literature reveals the need for education programs to deal with the implications of research in the entrepreneurship field. Career counselors and career advisors teaching, training and educating competencies are helpful for the entrepreneurial education.

Young, (1997) observed that in entrepreneurship three education researches areas concern, social-cognitive, psycho-cognitive, and spiritualist or ethical. He suggests that the implications of these dimensions for entrepreneurship education are not drawn out yet, in spite of previous calls to integrate them into the research agenda (e.g., Young, 1997). I suggest to focus on developing a research agenda on the social-cognitive preoccupations of Social Cognitive Theory (1986) to help entrepreneurship educators maximize the effectiveness of formal entrepreneurial education that helps to address the decline in entrepreneurial activity.

Linking learning, teaching entrepreneurship effectively and Entrepreneurship

The important role of higher education in stimulating job creators is discussed in Article 7 of “The World Declaration on Higher Education for the Twenty-First Century: Vision and Action,” adopted in 1998 by The World Conference on Higher Education. This article states that “developing entrepreneurial skills and initiative should become major concerns of higher education, in order to facilitate employability of graduates who will increasingly be called upon to be not only job seekers but also and above all to become job creators. Thus, universities should offer their students the opportunity to fully develop their potential abilities with a sense of social responsibility, educating them to become full participants in a democratic society and promoters of changes that will foster equity, justice, and national economic well-being.”

The professional counselors are professionals of higher education institutions that can contribute to the students development as job seekers and job creators. According to the National Association of Colleges and Employers career counselors can contribute to entrepreneurship education with the following competencies:

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- Needs assessment
- Program/workshop design and delivery
- Researching, evaluating, and integrating information
- Effective teaching strategies
- Career mentoring
- Work with individuals and groups
- Work with diverse populations
- Use of technology for delivery of content

Career counselors are professionals that can contribute to development of the new generation of entrepreneurs in today's economy and also create new knowledge of the interaction between learning and entrepreneurship and effective entrepreneurship teaching strategies.

Solomon, et al., (1994, cited in Kuratko, 2003) inform that by the early 1980s over 300 universities were reporting courses in entrepreneurship and small business, and by the 1990s that number had grown to 1,050 schools. Cone (in 2008) mentioned that more than 2,000 institutions offer courses in entrepreneurship. The Kauffman Foundation (2010) indicates that formal programs (majors, minors and certificates) in entrepreneurship have more than quadrupled, from 104 in 1975, to more than 500 in 2006. But at present there is very limited knowledge and understanding of the interaction between learning and entrepreneurship, and the process remains one of the most neglected areas of entrepreneurial research and understanding. There are also gaps in our knowledge about the effectiveness of entrepreneurship education (Soloman, Duffy & Torabishy, 2002, Clark, Davis, & Harnish, 1984; Wallenstein in 1993). Some research shows that four years after having taken entrepreneurship courses, interest in creating new ventures tends to dissipate (Whitlock and Master, 1996) and others observed that no clear relationship has been demonstrated between entrepreneurship education and students becoming entrepreneurs (Hostager & Decker, 1999 and Luthje & Franke, 2003).

In order to address this situation, first I want to point out the words of Angelo & Cross (1993) because of the timelessness of those words with the current state of affairs. These researchers said that the most promising ways to improve learning is to improve teaching. Kuratko pointed out that "In the midst of this huge expansion of courses, the challenge of teaching entrepreneurship more effectively remains."

Some authors reported that it is not clear what to teach in entrepreneurship, and there is a lack of detailed consideration of how entrepreneurs learn (Garavan & Cinnedide, 1994 and Solomon, 2007); others reported that there is no substantive agreement about what entrepreneurship means in educational settings, and that the appropriate content of programs is under permanent discussion (Gibb, 2002). More recently some authors identified that the components of a balanced entrepreneurship program should contain the following: (a) lectures on business concepts; (b) business-planning practices, including competitions and coaching; (c) interaction with practitioners and networking opportunities; and (d) university support such as market-research resources, meeting spaces, seed funding, patenting advice, etc. (Al-Laham,

Souitaris & Zerbinati, 2007). But to improve entrepreneurship learning is not sufficient. With these components having been identified, it is necessary to prove the existence of a link between learning and entrepreneurship, and in teaching entrepreneurship more effectively.

The Role of Social Cognitive Theory

The Social Learning theory of Albert Bandura (1986) establishes that the environment causes behavior, but behavior also causes the environment. Bandura calls this concept reciprocal determinism, where the world and the behavior of persons are mutually caused. Bandura believes that human conduct must be explained in terms of the reciprocal interaction between cognitive, behavioral, and environmental determinants.

The social cognitive theory of Bandura (SCT) centers on the concepts of reinforcement and observation, giving more importance to the mental internal processes as well as to the interaction of the subject with others. The SCT postulates that observation and imitation is given across models that can be parents, educators, and friends, and can even be heroes taken from television. The only requirement for learning can be that one person observes another individual, or models behavior to carry out a certain conduct. The observation and imitation intervene upon the cognitive factors and help the subject decide whether or not the observed behavior is to be imitated. The cognitive factors are the capacity of reflection and symbolization as well as the prevention of consequences based on processes of comparison, generalization, and auto-evaluation. One of the aims of the SCT is the development of the self-evaluation and the self-reinforcement constructs. According to Bandura, individuals possess an auto-system that allows them to measure the control on their own thoughts, feelings, motivations and actions. This system exercises self-regulation to enable individuals with aptitude to influence their own cognitive processes and actions and in this way to alter their environment.

If we applied the concepts I have just discussed to entrepreneurship education programs, we can infer that the student's observation and interaction with previous entrepreneurs can reinforce entrepreneurial behavior. The observation and imitation of former entrepreneurs will intervene upon the cognitive factors of the students and can help them – students or alumni – to decide if the observed behaviors should be imitated or not. SCT can be helpful to the entrepreneurial behavior field, but educators (career counselors) need to apply this theory to the curriculum (workshops, extracurricular activities) and to students' interactions.

Social Cognitive Theory and Self-Efficacy

Self-efficacy is a construct defined by Albert Bandura (1982) as “self-judgment of one's ability to perform a task in a specific domain.” The belief in self-efficacy provides a great influence on human beings, since they act on their thoughts, feelings and behaviors (Bandura, 1995). Garcia et al., 1991 defines self-efficacy as “self-appraisal of one's ability to accomplish a task and one's confidence in possessing the skills needed to perform that task.” The SCT explains that an individual's sense of self-efficacy can be influenced through four processes: enactive mastery, role modeling and vicarious experience, social persuasion, and judgments of one's own physiological states, such as arousal and anxiety (Bandura, 1986). The self-efficacy construct influences an individual's choice of activities, goal levels, persistence, and performance

in a range of contexts. Self-efficacy is a motivational factor that educational research from the social cognitive approach establishes. Bandura mentioned that self-efficacy affects some of the factors that predict motivation.

Krueger et al (2000) pointed out that experience influences the entrepreneur's intention, and that there is also a direct relationship between entrepreneur's experience on perceived feasibility and perceived desirability; feasibility and desirability existing in the environment that influences the entrepreneur's experience, so perceived feasibility and perceived desirability partially serve as key elements in forming entrepreneurial experiences and entrepreneurial intentions. Krueger et al (2000) observed that entrepreneurs' experiences directly influence the entrepreneur's intention to start a new venture.

Self-efficacy has an important effect on the choice of behavior setting. Individuals tend to choose situations in which they anticipate high personal control but avoid situations in which they anticipate low control (Bandura 1977, 1982; Bandura & Schunk, 1981; Wood & Bandura, 1989, 2012). Consequently, to the extent that people plan and choose their career paths, they assess their personal capabilities against the requirements of different occupations (Chen, Greene & Crick, 1998). This assessment of their personal capabilities therefore directs people to prepare for and enter occupations in which they feel successful, but at the same time avoid occupations in which they feel a lack of competence (Betz and Hackett 1981, 1986, Miura 1987; Scherer et al. 1989). Empirical evidence establishes that entrepreneurial self-efficacy was positively related to students' intentions to start their own business (Chen, Greene & Crick, 1998).

Entrepreneurial Self-Efficacy and Intentions

In the past, some authors have provided evidence of the increasing emphasis on the role of self-efficacy in the study of entrepreneurship, including areas such as entrepreneurial career preferences, intentionality, and performance (Boyd & Vozikis 1994; Chandler & Jansen 1992; Gartner 1989; Krueger & Brazeal 1994; Scherer et al., 1989). Entrepreneurial self-efficacy (ESE) is defined as an individual's confidence in his or her ability to successfully perform entrepreneurial roles and tasks (Chen, Greene et al. 1998; De Noble, Jung et.al. 1999). ESE is also defined as a construct measuring a person's belief in his ability to successfully launch an entrepreneurial venture (McGee, Peterson et al., 2009). Entrepreneurial self-efficacy is a variable useful for increasing students' convictions that they can execute the necessary entrepreneurial behavior to produce the desired result; a new venture. The measure of entrepreneurial self-efficacy has been widely adopted for identifying entrepreneurial intentions and consequently entrepreneurial conduct, and for investigating how education and training can be used to improve entrepreneurial action (Føleide, 2011). Perceived desirability constitutes the primary component of entrepreneurial intention (Liñan et al. 2011, p. 205). Azjen (1991) observed that three attitudinal antecedents are necessary to trigger the action of starting a business: (a) the desire to start the business, (b) the belief that the business contributes to well-being of the society, and that (c) success is possible.

I suggested the use of the entrepreneurial self-efficacy construct in the curriculum (workshops) and extracurricular activities to provide a great influence on the students; they will act on their thoughts, feelings and entrepreneur behaviors. If the students visualize themselves with high personal control as entrepreneurs (task and roles) maybe they will choose an entrepreneurial career path. Entrepreneurship educators (include career counselors) can

benefit from the implementation of self-efficacy construct to the learning process. A high level of entrepreneurial self-efficacy can help them produce more entrepreneurs (Bird 1988; Boyd & Vozikis 1994), an important goal of entrepreneurship education and national economies. ESE is a promising construct, with the potential to predict entrepreneurial performance and for improving the rate of entrepreneurial activities through training (Mueller & Goic 2003; Zhao, Seibert et al. 2005; Florin, Karri et al. 2007).

Personality and environmental factors are incorporated into entrepreneurial self-efficacy, and are thought to be strong predictors of entrepreneurial intentions and ultimately action (Bird 1988; Boyd and Vozikis 1994). Forbes 2005; Kolvereid and Isaksen 2006 observed that nevertheless, the construct remains empirically underdeveloped and many scholars have called for refinements of the construct. The development of the ESE construct can help to improve the entrepreneurial learning process and increase the rate of entrepreneurial activities. The assessment of personality and explanation of the educational environmental factors of entrepreneurship programs can improve the students' entrepreneurial self-efficacy, and predict entrepreneurial intentions. As a strategy, business schools, entrepreneurship programs and career counselors can assess the entrepreneurial self-efficacy of their students and develop special activities for students with the highest entrepreneurial self-efficacy levels, and also activities for students with low entrepreneurial self-efficacy. This strategy can help to attend to the special learning and entrepreneurial needs of all students.

Another strategy that can help increase entrepreneurial self-efficacy, intentions and learning in students is the exposure to others with previous entrepreneurial experience; this can provide emerging entrepreneurs with useful knowledge (Boyd & Vozikis, 1994, Chen, Green & Crick, 1998, Krueger & Brazeal, 1994) and reduce their uncertainties (Bandura, 1978). The learning process that entrepreneurs have to develop for students' confidence in that career is based on the knowledge and skills developed in the program (De Clercq & Arenius, 2006).

Educators (career counselors) need to maximize the use of entrepreneurial self-efficacy in the curriculum because it is an antecedent that influences the entrepreneurial choice (Boyd & Vozikis 1994; Krueger & Brazeal 1994); high levels of self-efficacy would consequently lead to emerging entrepreneurial behavior and ultimately to entrepreneurial action (McGee, Peterson et al., 2009, Chen, Greene & Crick, 1998). Entrepreneurship programs and career counselors need to reach the right factor combinations of personal attributes, traits, background, experiences and disposition that students need to pursue the idea of becoming entrepreneurs (Krueger Jr and Brazeal 1994; Krueger Jr, Reilly et al. 2000; Shane, Locke et al. 2003; Baron 2004; Arenius and Minniti, 2005).

More research on personal attributes, such as traits, background, experiences and disposition, and factors that influence an individual to pursue the idea of becoming an entrepreneur and entrepreneurial self-efficacy (Boyd & Vozikis 1994; Krueger & Brazeal 1994) can help improve the learning process and the entrepreneur career choice. Longitudinal studies in entrepreneurship programs can help provide evidence of the impact of entrepreneurial programs in entrepreneurial self-efficacy and intentions, and according to the results, allow for the necessary adjustments to be made to the program.

Entrepreneurial Competencies and Entrepreneurial Self-Efficacy

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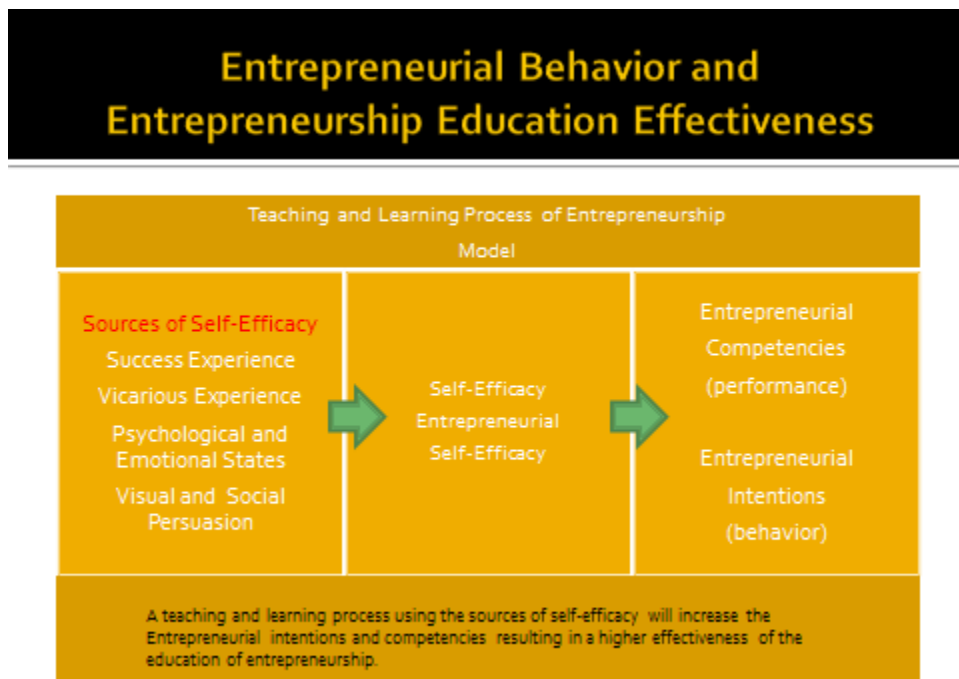
Entrepreneurial competencies that are developed in educational programs have been neglected for a long time, yet they are essential variables in entrepreneurial development (Inyang & Enough, 2009). The literature points out that areas in which entrepreneurs need to acquire greater competencies are: managing time effectively, communication, human resources management, business ethics, social responsibility, developing effective leadership qualities, decision making skills, marketing and financial management. Entrepreneurship programs and career counselors need to evaluate and assess their instructional approach and curriculum to determine if they include all entrepreneurial competencies. They also need to evaluate if the instructional approach and curriculum have a positive impact on the development of entrepreneurial competencies (outcomes) and the entrepreneurial self-efficacy of their students (Izquierdo & Buyens, 2008). The entrepreneurship program can use the Theory of Planned Behavior, generally used to for the assessment of their programs as a framework (Ajzen, 1991); and then make the necessary adjustments.

Bandura (1986) claims that a high level of self-efficacy may influence students' choice of activities, goal levels, persistence and performance in a range of contexts. This increase of entrepreneurial self-efficacy can also positively influence the students' choice of entrepreneurial activities, entrepreneurial goal levels, entrepreneurial persistence and performance in an entrepreneurship context. Theoretical and empirical literature expose why some exploit opportunities and some do not (Begley & Boyd, 1987; Brockhaus, 1980; Cooper & Dunkleberg, 1987, cited in De Carolis, & Saporito, 2006).

Sexton & Bowman, 1984). The majority of this literature proposes that psychological variables, personality traits and demographic factors may distinguish entrepreneurial activity. Yet, the results of these findings are equivocal (Brockhaus & Robert Horowitz, 1986; Low & MacMillan, 1988; Shaver & Scott, 1991).

Entrepreneurship education can benefit from teaching techniques that incorporate entrepreneurial self-efficacy, entrepreneurial intentions and competencies. I consider that techniques that incorporate SCT and the principal sources of self-efficacy are important, and that they will help students develop positive judgments about their self-capacities, obtain successful and vicarious experiences, receive verbal persuasion or social persuasion and manage their somatic and emotional state. I believe this will lead to an increase in their entrepreneurial self-efficacy, be positively related with entrepreneurial intentions and those entrepreneurial intentions, in turn, can increase the entrepreneurial activities needed in the economy, and thus propose the following framework for use in experimental design and assessment of these outcomes for entrepreneurship programs:

Figure 1: A Theoretical Framework for assessing Entrepreneurship Education Effectiveness



The research to date suggests that SCT, self-efficacy, entrepreneurial self-efficacy, entrepreneurial intentions and entrepreneurial competencies measurement can help improve entrepreneurship teaching, and teaching will improve learning (Angelo & Cross, 1993).

A culture of assessment in entrepreneurship programs and courses can help to improve learning, monitoring outcomes, growing through self-reflection and feedback, experimenting by modification and adjusting best practices, mapping the trends and paradigms (Hytti & Kuopusjarve, 2004). SCT, self-efficacy, and the entrepreneurial self-efficacy construct might be able to help demonstrate a clear relationship between entrepreneurship education and students becoming entrepreneurs, and increase the proportion of people starting a business after graduation.

The research suggests that after the completion of an entrepreneurship education program, students may have higher entrepreneurial self-efficacy (Izquierdo & Buyens, 2008).

Career counselors can studied the role of generalized self-efficacy, entrepreneurial self-efficacy in entrepreneurial education programs in order to enhance the level of student entrepreneurial intentions and competencies could be designed as follows in Table 1:

Students	General Self-Efficacy	Entrepreneurial Self-Efficacy	Entrepreneurial Intentions	Entrepreneurial Competencies
Entrepreneurship Students	Pre/Post	Pre/Post	Pre/Post	Pre/Post
Regular Students	Pre/Post	Pre/Post	Pre/Post	Pre/Post

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Table I: Proposed Research Design

This design would test the following theoretical propositions developed herein, such as:

P1: Entrepreneurial self-efficacy of students who complete an entrepreneurship program will be higher than students who do not complete such a program.

P2: Entrepreneurial intentions of students who complete an entrepreneurship program will be higher than students who do not complete such a program.

P3: Entrepreneurial competencies of students who complete an entrepreneurship program will be higher than students who do not complete such a program.

Implications and Conclusion

Social Cognitive Theory (Bandura, 1986) and entrepreneurial self-efficacy can be very useful as applied tools for developing entrepreneurship learning, competencies and intentions.

Regarding future research, I believe it is necessary to establish whether entrepreneurial self-efficacy is positively related to students' intentions to start their own business (Chen, Greene, and Crick, 1998) and about personality and environmental factors incorporated in entrepreneurial self-efficacy; a strong predictor of entrepreneurial intentions and, ultimately, of action (Bird 1988; Boyd & Vozikis, 1994). Also, it is necessary to study the interaction between learning and entrepreneurship (career counselor competencies); the effectiveness of entrepreneurship education; and the relationship between entrepreneurship education and students becoming entrepreneurs (Hostager & Decker, 1999 and Luthje & Franke, 2003).

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