



---

2019

## Unleashing the Potential of University Entrepreneurship Education: A Mandate for a Broader Perspective

Donna M. De Carolis  
*Drexel University*

Barrie E. Litzky  
*Drexel University, barrielitzky@drexel.edu*

Follow this and additional works at: <https://digitalcommons.sacredheart.edu/neje>



Part of the [Entrepreneurial and Small Business Operations Commons](#), and the [Higher Education Commons](#)

---

### Recommended Citation

De Carolis, D. and Litzky, B. (2019), "Unleashing the potential of university entrepreneurship education", *New England Journal of Entrepreneurship*, Vol. 22 No. 1, pp. 58-66. <https://doi.org/10.1108/NEJE-04-2019-0022>

This Research Article is brought to you for free and open access by the Jack Welch College of Business & Technology at DigitalCommons@SHU. It has been accepted for inclusion in New England Journal of Entrepreneurship by an authorized editor of DigitalCommons@SHU. For more information, please contact [ferribyp@sacredheart.edu](mailto:ferribyp@sacredheart.edu), [lysobeyb@sacredheart.edu](mailto:lysobeyb@sacredheart.edu).

# Unleashing the potential of university entrepreneurship education

## A mandate for a broader perspective

Donna M. De Carolis and Barrie E. Litzky  
*Charles D. Close School of Entrepreneurship,  
Drexel University, Philadelphia, Pennsylvania, USA*

### Abstract

**Purpose** – The purpose of this paper is to highlight the ways in which traditional views of entrepreneurs and entrepreneurship have inadvertently limited entrepreneurship education. The authors propose a broader view of what it means to be an entrepreneur and describe a disruptive approach to entrepreneurship education, one that centers around building students' entrepreneurial mindset. By tapping into students' "inner entrepreneur" and nurturing their abilities to think and act creatively, embrace failure, effect change and be resilient, the authors are preparing them for the challenges of the twenty-first century labor market.

**Design/methodology/approach** – This is a perspective paper about how the traditional views of entrepreneurship education may be limiting its potential to create entrepreneurial college graduates set to take on twenty-first century careers.

**Findings** – Teaching the entrepreneurial mindset and process will allow us, as educators, to best prepare our students for the complexities of the current and future workforce.

**Originality/value** – By embracing the original meanings of the word "entrepreneur" – an act of reaching out and capturing and undertaking – the authors demystify what it means to be an entrepreneur. When we adopt a broader and more accurate conceptualization of "the entrepreneur," we can teach our students to be the entrepreneurs of their lives.

**Keywords** Entrepreneurship education, Entrepreneurial mindset

**Paper type** Viewpoint

### Introduction

There is no denying that entrepreneurship education at universities worldwide remains a priority – if not in action, at least in words. Innovative ideas often spring from the individuals working in start-ups, job creation is fostered through new business ventures, and society progresses as problems are identified, solutions are created, and markets and industries are disrupted. The resounding endorsement of bringing entrepreneurship into the classroom with the aspiration of releasing entrepreneurs into society stems from its proven potential.

Yet, the challenge of entrepreneurship education lies in getting it right. For there is scant evidence that entrepreneurship education the way that it is typically taught, it results in a proliferation of new and successful businesses (Schramm, 2014; Yamakawa *et al.*, 2016), which is the typical and narrowly defined outcome of university entrepreneurship programs. There is an expectation that the only measure of success of entrepreneurship education is the graduate who starts and operates a successful company. In the majority, if not all other academic areas, we accept a continuum of success. There are a myriad of ways to practice medicine, law, accounting,



engineering, nursing, design, writing, teaching, etc. But when it comes to entrepreneurship, we expect, and even demand, the creation and sustainability of a new company.

This is unfortunate, as this constricted view of what entrepreneurship education should produce and has spawned unsuccessful entrepreneurship pedagogies and unrealistic outcomes and expectations. And it is built on the very popular and inaccurate characterization of what an entrepreneur should be.

The purpose of this paper is to present, and perhaps more accurately, revive what it really means to be an entrepreneur and how the true meaning of what it takes to be an entrepreneur should influence entrepreneurship education and the expectations of its success. We suggest that the adoption of a broader description of an entrepreneur is re-defining entrepreneurship education in the twenty-first century in a way that is congruent with the current and future labor market considering global, technological, scientific and socio-economic trends.

### **The mistaken premises of entrepreneurship education**

Globally, there are three fundamental assumptions that have dominated university higher education. The first assumption rests on the characterization of the entrepreneur. The immediate and global interpretation of the word “entrepreneur” is one who starts a company. More than that, the word itself conjures images of a superstar who builds a business from scratch; who develops the vision, hires the team, creates the product, gathers the resources, raises the money, propels the company forward and ultimately benefits financially.

Thus, the entrepreneur, somehow different from the rest of us, becomes larger than life. Markets and governments view entrepreneurs as engines of progress, through their “creative destruction” abilities, to quote Schumpeter (1934). So, we experience a growing momentum to produce more entrepreneurs in public policy initiatives, in government endorsements, in support of entrepreneurship programs across the globe and in the classrooms of higher education.

In line with this characterization of entrepreneurs, the second assumption in higher education is that an entrepreneurship curriculum must largely revolve around the process of starting and sustaining a new venture. And this leads to the third assumption that an entrepreneurship plan of study or program or curriculum should mirror a business school curriculum.

Higher education has adopted an approach to teaching entrepreneurship that is a version of the business school paradigm. Business schools partition their education into functional areas such as accounting, finance, marketing, management and operations. Students enter business schools and take courses in several functional areas and specialize or major in one area. To provide students with a holistic view of managing an enterprise, students take a capstone class in strategy. Business school curricula assume that graduating students will work in a company as a specialist and may, eventually, move into managerial positions. This general pedagogical approach to business school education is not only valid, but effective as it graduates students well prepared to tackle real world challenges in their disciplines and advance into leadership positions.

With the popularity of entrepreneurship education taking hold in the last 20 years or so, we have witnessed an increase in courses and majors in entrepreneurship in business schools (Katz, 2003; Kuratko and Morris, 2018). The business school approach to entrepreneurship education mirrors the business school pedagogy. Students take courses in entrepreneurial marketing, entrepreneurial law, and entrepreneurial finance and so on. Then, the capstone course in an entrepreneurship major is business planning, intended to integrate the prior courses. The entrepreneurship students graduate and we send them out the classroom door and expect them to be entrepreneurs – to start and run successful companies.

We have learned that it does not work that way (Duval-Couetil and Long, 2014; Yamakawa *et al.*, 2016). And it does not work that way because universities have spawned

entrepreneurship curricula based on the business school paradigm and on a very constricted definition of what it means to be an entrepreneur. Universities have assumed that teaching the process of entrepreneurship produces the entrepreneur.

Together, the two assumptions of the definition of an entrepreneur and how universities should teach entrepreneurship then lead directly to the third logical assumption measure the success of entrepreneurship education by new venture creation. Yet, empirical studies supporting that correlation have yielded mixed and weak results.

Higher education needs to re-visit and disrupt all three of these assumptions. There is no denying the economic and social benefits of new businesses. But to thrive as individuals in this dynamic global economy and to contribute to economic development, societal welfare and sustainability, we must replace the depiction of the entrepreneur solely as the successful venture creator with a broader interpretation of what it means to be an entrepreneur (Amatucci *et al.*, 2013).

### **Entrepreneurs are born and made**

The word “entrepreneur” originally comes from the combination of two Latin words “entre,” to swim out, and “prendes,” to grasp, or capture. The French evolution of the word translates to one who undertakes. If we embrace these original meanings of the word “entrepreneur” – an act of reaching out and capturing and undertaking – then we open an interpretation of those moments in our lives when we think and behave as an entrepreneur. These are “small acts of entrepreneurship” (DeCarolis, 2018).

Small acts of entrepreneurship extend beyond the realm of business or profession – they occur throughout our lives – although we do not label them as such. When we “swim out” from what we normally do and grasp or undertake a new opportunity, we are engaging in small acts of entrepreneurship. It could be relocating to a different city, changing jobs or careers, or evolving in response to a personal crisis.

We are born “entrepreneurs” and do not realize the extent to which we manifest that character. For many of us, cultural or societal norms, education or pressures of family may limit our entrepreneurial qualities. We learn the comfort and safety of doing what is familiar; we become complacent in routine and perceive fear-based outcomes as opposed to considering new opportunities. So while society and, in particular, universities emphasize the glorified version of the entrepreneur – the larger than life individual who starts new ventures – the inner entrepreneur in all of us gets marginalized and neglected in the classroom.

We have the capacity to think and act creatively, to embrace failure, to effect change, to persevere, to be resilient. As educators, we can reinforce the idea that beyond the business context, all of us engage in small acts of entrepreneurship in many aspects of our lives. And through education, we can foster and nurture and develop the entrepreneur – through a curriculum curated to the outcome of creating the mindset – not just creating the venture.

An entrepreneurial mindset is an innovative approach to thinking and doing; the acquisition of an attitude and skill set that encompasses resilience, calculated daring and initiative. Definitions in the literature vary, but the common attributes associated with an entrepreneurial mindset include creativity, empathy, resilience, self-sufficiency and the ability to learn from failure, all of which can be learned (Kuratko and Morris, 2018; McAlexander *et al.*, 2009). These attributes underpin the making of an entrepreneur.

The notion that individuals have the capacity to change their mindsets, and that doing so will result in an outcome or series of outcomes is not new. Eastern philosophers, modern-day athletes and psychologists from many domains have all contributed to the idea that being present and positive in mind can result in favorable outcomes. Psychologists have been studying the effects of one’s thoughts or mindset, on mental illness since the 1960s. The creator of cognitive-behavioral therapy, Aaron Beck (1970), recognized the influence that negative thoughts had on mental illness and created a branch of therapy that trains people

how to change their thoughts to not only feel better, but to reach their potential. In the 1990s, Martin Seligman *et al.* at the University of Pennsylvania launched the movement in positive psychology, upon recognizing that having individuals focus on their strengths and positive attributes, rather than on reducing their deficits as traditional psychology did, would result in their abilities to live meaningful and fulfilling lives (Seligman, 1994).

Most recently, educators, parents and captains of industry have been strongly influenced by Carol Dweck's (2008) work on the psychology of success. Dweck (2008) challenged the assumption that intelligence, IQ, was a finite property and actually discovered that individuals approach goal setting with one of two mindsets. Those with fixed mindsets believe that intelligence is something one is born with and it is unchangeable, whereas those with growth mindsets believe that intelligence and learning can evolve over time. In educational settings, a child's mindset would often be reflected in their beliefs about their own capabilities and how much effort to expend toward a goal (Claro *et al.*, 2016). Relatedly, research showed that a teacher's mindset about a student influenced a student's ability to learn even the most challenging tasks (Claro *et al.*, 2016; Dweck, 2008). The entrepreneurial mindset, like those studied before it, is tangible and knowable and essential in channeling one's inner entrepreneur. As educators, if we believe in the power of a growth mindset, such that we can develop our students for continuous learning, and that mindsets are dynamic and can change, then innovative thinking and doing, which is the definition of an entrepreneurial mindset, is synergistic with a growth mindset.

As university educators, we know that we are graduating students into a labor market that values creativity and self-sufficiency, increasingly relies on contract or contingent labor, and is adopting artificial intelligence and automation at a rapid pace. This is an economy in which coming generations of graduates will have multiple jobs in their careers that most likely will include self-employment and/or running a company (or two) while being fully employed. This labor economy demands an entrepreneurial mindset. Whether by choice or by necessity, individuals prepared to face the labor market with an entrepreneurial mindset will transition more smoothly.

### **The twenty-first century labor market: ripe for entrepreneurs**

Current and future labor market trends set the stage for a re-consideration of how universities globally approach entrepreneurship pedagogy and reinforce the need to move entrepreneurship education from its focus on new business creation to a focus on creating the mindset. We are looking at a labor market that demands innovative thinkers and doers as employees, business owners or contingent workers.

Established companies are relying on contract workers to a much larger degree than ever to take advantage of cost savings, flexibility and accessing optimal talent at the right time. Recent research suggests that 40 percent of today's global workforce consists of non-employee talent such as independent contractors, freelancers, professional services and temporary workers (Dwyer, 2017). This contingent workforce is not meant to supplement talent but to add more value and skills that do not exist within a company. This translates into an opportunity for a new career path – one that does not rely on traditional employment but rather embraces self-employment.

In addition, traditional organizations seek workers with an entrepreneurial mindset (Sherman *et al.*, 2007). In PWC's annual global survey of CEOs, they are asked about their level of concern about a variety of economic, policy, social, or environmental threats. The availability of key skills is among the top ten most significant concerns for these CEOs. And it is not just technical skills. As important as skills from the STEM fields are, equally important are power skills (Agarwal, 2016) like empathy, creativity and problem solving (Pittz *et al.*, 2017). CEOs believe these are the skills that need to be developed and nurtured for true innovation to take place. When asked how they planned to address the skills gap,

31 percent of North American CEOs said by establishing a direct pipeline from education (PWC, 2019).

The current and emerging workforce needs to be primed to fill this demand. We know that Millennials and Gen Zs want flexibility and freedom. They embrace the gig economy as it provides a lifestyle they value. They want to start their own company at some point in their career. They want to work for companies that have a positive impact on society. These workers overwhelmingly believe that corporate objectives should include positive impacts on society and the natural environment (Deloitte, 2018).

Millennials and Gen Z employees embrace the notion of the boundaryless career – one characterized by non-traditional mobility patterns and job changes (Briscoe *et al.*, 2006) – as it supports the flexibility and freedom they crave. The Bureau of Labor Statistics documents that in the first twenty years of a career in the USA, people will have about ten jobs and some of them will be self-employment (Bureau of Labor Statistics, 2017). In general, a majority of this generation’s workforce see themselves leaving their current employers within two years (Deloitte, 2018). Given the demands/characteristics of the labor market and the profile of the labor workforce (Carriker, 2017), higher education has an opportunity and responsibility to educate people to be the entrepreneurs of their lives.

In fact, student demand is what has driven universities (typically within business schools) to create courses and even majors in social entrepreneurship. There are two broad models educators use to teach social entrepreneurship: one is fundamentally about social change and building community capabilities; these ventures are highly mission driven and that takes precedence over building competitive advantage. The other is that business development and profitability must be prioritized as public and private funding sources are rapidly disappearing and social entrepreneurs have no choice but to accept commercial logic (Tracey and Phillips, 2007). Regardless of the perspective taken, educators must prepare social entrepreneurs for the demanding, complex and often ambiguous world they will encounter either in existing ventures or newly created ones (Tracey and Phillips, 2007; Worsham, 2012).

Largely considered the Father of Social Entrepreneurship, Greg Dees advocated for always teaching social entrepreneurship within the larger context of social change and that achieving true social impact should be the sought outcome (Worsham, 2012). He referred to the art of creating social change in meaningful ways that do not alienate the populations being served by the social venture. He believed that skills including humility, respect and empathy (components of the entrepreneurial mindset) were of paramount importance for social entrepreneurs and that business schools were typically not the best places for students to hone these skills (Worsham, 2012).

Other research supports the notion that entrepreneurial competencies include non-traditional capabilities like passion and compassion, persistence and tenacity, optimism and creative problem solving (Kuratko and Morris, 2018; Robles, 2012; Pittz *et al.*, 2017). Research supports the inclusion of emotional intelligence (Worsham, 2012), mindfulness (Kelly and Dorian, 2017) and ethical decision making (Fisscher *et al.*, 2005) in programs of social and traditional entrepreneurship, as these are the tools that will help students gain success in any context in which they work: whether through a corporate employer, at a consulting firm, working with a social entrepreneur, serving on a board, volunteering and the like (Worsham, 2012, p. 450). Taken together, these studies suggest that characteristics associated with the entrepreneurial mindset help enable success in multiple contexts.

### **The twenty-first century university entrepreneurship curriculum**

As mentioned earlier, three assumptions underlie the traditional entrepreneurship curriculum. The first is the narrow description of an entrepreneur; the second is that entrepreneurship curriculum should mimic a business school curriculum and the third is

measuring the outcome of such an education as new business creation. Eradicating these assumptions paves the way for much needed changes in entrepreneurship pedagogy.

To prepare students for today's world of work, the twenty-first century university entrepreneurship curricula must focus on developing the whole person, one who learns to think and act like an entrepreneur. Once we expand the definition of the entrepreneur to capture its original meaning – one who takes a chance and reaches out – we can use that definition as a foundation for creating curriculum and programming that teaches an entrepreneurial mindset and will allow students to remain competitive throughout the course of their careers.

It is a curriculum that captures aspects of business and the process of entrepreneurship along with the entrepreneurial mindset. To attain this intersection of skills, the pedagogy must be experiential.

This is accomplished through immersion in starting a business, perhaps several times throughout their university experience. Students must experience, first hand, the frustrations of failure, and finding a way back in, while doing so in a safe environment. They must be allowed to experiment, to adapt and to pivot when necessary. Infusing a practice-based pedagogy – where students can develop self-efficacy around responding to uncertainty and evaluating risks – is paramount to developing an entrepreneurial mindset (Yamakawa *et al.*, 2016). This involves an apprenticeship approach and committed instructors and mentors and peers who intertwine the classroom concepts simultaneously with experience.

As professors and mentors, while we guide them through the startup process, our focus should be not just on the business and operating decisions, but also on a cluster of personal attributes that do indeed contribute to an entrepreneurial outlook. Integrating course work and experiences that address personal entrepreneurial development is a necessary component of learning entrepreneurship.

Research supports the idea that teaching an entrepreneurial mindset has benefits. The results of a cross-case analysis of 22 varied entrepreneurship programs across Europe suggests that fostering an entrepreneurial mindset contributes to the development of the whole person (Secundo *et al.*, 2016) and contributes to life-long learning. The entrepreneurial mindset has been shown to facilitate student engagement and believed to be a core competency in engineering education (Korte *et al.*, 2018). In fact, engineers believe that “soft skills” are so important, they are embedded into the mission of the Kern Entrepreneurship Education Network, which is to create an action-oriented, entrepreneurial mindset among undergraduate STEM students (Rae and Melton, 2017). The entrepreneurial mindset has been studied outside of the university setting. In Togo West Africa, micro-entrepreneurs were divided into two groups: one group attended training that focused on proactive entrepreneurial behaviors and the other group attended traditional business training. The micro-entrepreneurs that went through proactive mindset training increased firm profits by 30 percent over the 11 percent increase by those exposed to traditional business training (Campos *et al.*, 2017). These studies highlight the applicability of teaching the entrepreneurial mindset across settings and with different, positive outcomes.

### **Implications for entrepreneurship education and research**

Seismic shifts in how individuals will earn a living, how the coming generations view their careers and how they embrace their obligations negate the traditional assumptions in higher education of what it means to be an entrepreneur and how their success is measured. The outcome is to create a more entrepreneurial society, not just new businesses (Carriker, 2017) and this begins with the awareness that every individual has the capacity and can acquire an entrepreneurial mindset.

Universities have a mission to educate individuals that are productive and responsible global citizens. Entrepreneurship education can be a major force in fulfilling that commitment.

And we can only fulfill that global imperative if we disrupt the traditional approach to university entrepreneurship education.

Our small acts of entrepreneurship enhance resilience, self-esteem and innovative thinking. What if higher education in entrepreneurship embraced and nurtured the inner entrepreneur in all of us? What if a major component of entrepreneurship education was the acquisition of resilience, initiative, confidence, ethical decision making, which students could take with them in new ventures, or established companies or in their life decisions? What if entrepreneurship education included personal empowerment and accountability for the world's challenges as students approach and manage their career choices?

Imagine how higher education could contribute to eliciting the inner entrepreneur in all of us through embracing the broader and more accurate conceptualization of "the entrepreneur" and infusing the experience throughout our programming.

So, what is the appropriate outcome of an entrepreneurship education that simultaneously produces the person and educate the process? If we do not measure the success of an entrepreneurship education by the number of new ventures our graduates start, how will we define success? Teaching the entrepreneurial mindset throughout the course of the program is tangible and measurable. Students can be assessed in their first year using the validated version of the Entrepreneurial Mindset Profile (Davis *et al.*, 2016) and then again when they graduate. In addition to collecting pre-post EMP data, students should be provided the opportunity to respond to open ended questions in an exit survey or interview to best articulate what they learned. These metrics will provide a better understanding of the extent to which the twenty-first century entrepreneurship curriculum is in fact providing students with the tools necessary to be the entrepreneurs of their lives.

Embracing a broader perspective of what it means to be an entrepreneur and adapting entrepreneurship curricula to that perspective sets the stage for new research questions. Studies that measure the success of entrepreneurship education will need to adapt dependent variable outcomes to include much more than whether graduates start companies. If, in fact, we aim to teach students to be entrepreneurs of their lives, then we must engage in longitudinal research that can assess the career trajectories of our graduates and their definitions of success along the way. This sets the stage for a stream of research that examines the subjective career experiences and successes (Arthur *et al.*, 2005) of graduates of entrepreneurship programs.

Another interesting stream of research might focus on the varying career paths that entrepreneurship graduates choose, and the specific aspects of the entrepreneurial mindset that inform those choices. For example, we might investigate the application of the entrepreneurial mindset to decisions to pursue innovations in start-ups vs in established companies, in non-profits and governmental organizations. Can we correlate the growth in their entrepreneurial mindsets to choices to innovate in the public or government the sectors?

Since Millennials and Gen Zers are attuned to solving societal and environmental challenges, research could capture whether and how these graduates are employing the entrepreneurial mindset to make positive societal impacts. Ultimately, crafting curricula around the broader definition of what it means to be an entrepreneur, coupled with the varying measures of successful outcomes will allow higher education to unleash the power of a new paradigm in entrepreneurship education.

## References

- Agarwal, A. (2016), "Workforce training", EdSurge, available at: [www.edsurge.com/news/2016-12-14-rethinking-credentials-the-power-of-soft-skills](http://www.edsurge.com/news/2016-12-14-rethinking-credentials-the-power-of-soft-skills) (accessed June 19, 2019).
- Amatucci, F.M., Pizarro, N. and Friedlander, J. (2013), "Sustainability: a paradigmatic shift in entrepreneurship education", *New England Journal of Entrepreneurship*, Vol. 16 No. 1, pp. 7-18.



- Arthur, M.B., Khapova, S.N. and Wilderom, C.P.M. (2005), "Career success in a boundaryless career world", *Journal of Organizational Behavior*, Vol. 26 No. 2, pp. 177-202.
- Beck, A.T. (1970), "Cognitive therapy: nature and relation to behavior therapy", *Behavior Therapy*, Vol. 1, pp. 184-200.
- Briscoe, J.P., Hall, D.T. and Frautschy DeMuth, R.L. (2006), "Protean and boundaryless careers: an empirical exploration", *Journal of Vocational Behavior*, Vol. 69 No. 1, pp. 30-47.
- Bureau of Labor Statistics (2017), "Projections of occupational employment, 2016–26", Career Outlook, U.S. Bureau of Labor Statistics, October, available at: [www.bls.gov/careeroutlook/2017/article/occupational-projections-charts.htm](http://www.bls.gov/careeroutlook/2017/article/occupational-projections-charts.htm) (accessed March 1, 2019).
- Campos, F., Frese, M., Goldstein, M., Iacovone, L., Johnson, H.C., McKenzie, D. and Mensmann, M. (2017), "Teaching personal initiative beats traditional training in boosting small business in West Africa", *Science*, Vol. 357 No. 6357, pp. 1287-1290.
- Carriker, R.C. (2017), "The case for exposing every student to entrepreneurship", *Journal of Higher Education Theory and Practice*, Vol. 17 No. 1, pp. 21-32.
- Claro, S., Paunesku, D. and Dweck, C.S. (2016), "Growth mindset tempers the effects of poverty on academic achievement", *Proceedings of the National Academy of Sciences of the United States of America*, Vol. 113 No. 31, pp. 8664-8668.
- Davis, M.H., Hall, J.A. and Mayer, P.S. (2016), "Developing a new measure of entrepreneurial mindset: reliability, validity, and implications for practitioners", *Consulting Psychology Journal: Practice and Research*, Vol. 68 No. 1, pp. 21-48.
- DeCarolus, D.M. (2018), "Small acts of entrepreneurship transcend the business realm", available at: <https://eexchange.com/content/337-small-acts-of-entrepreneurship-transcend-the-bus> (accessed March 15, 2019).
- Deloitte (2018), "2018 Deloitte millennial survey", available at: [www2.deloitte.com/global/en/pages/about-deloitte/articles/millennialsurvey.html](http://www2.deloitte.com/global/en/pages/about-deloitte/articles/millennialsurvey.html) (accessed March 15, 2019).
- Duval-Couetil, N. and Long, Z. (2014), "Career impacts of entrepreneurship education: how and when students intend to utilize entrepreneurship in their professional lives", *Journal of Business and Entrepreneurship*, Vol. 26 No. 1, pp. 63-87.
- Dweck, C.S. (2008), *Mindset: The New Psychology of Success*, Random House Digital, Inc.
- Dwyer, C.J. (2017), "The state of contingent workforce management 2017-2018: the convergence of talent, technology, and the future of work", available at: [www.fieldglass.com/resources/reports/state-of-contingent-workforce-management-2017-2018-talent-technology-future-of-work](http://www.fieldglass.com/resources/reports/state-of-contingent-workforce-management-2017-2018-talent-technology-future-of-work) (accessed March 15, 2019).
- Fisscher, O., Frenkel, D., Lurie, Y. and Nijhof, A. (2005), "Stretching the frontiers: exploring the relationships between entrepreneurship and ethics", *Journal of Business Ethics*, Vol. 60 No. 3, pp. 207-209.
- Katz, J.A. (2003), "The chronology and intellectual trajectory of American entrepreneurship education: 1876–1999", *Journal of Business Venturing*, Vol. 18 No. 2, pp. 283-300.
- Kelly, L. and Dorian, M. (2017), "Doing well and good: an exploration of the role of mindfulness in the entrepreneurial opportunity recognition and evaluation process", *New England Journal of Entrepreneurship*, Vol. 20 No. 2, pp. 25-35.
- Korte, R., Smith, K.A. and Li, C.Q. (2018), "The role of empathy in entrepreneurship: a core competency of the entrepreneurial mindset", *Advances in Engineering Education*, Vol. 7 No. 1, pp. 1-10.
- Kuratko, D.F. and Morris, M.H. (2018), "Examining the future trajectory of entrepreneurship", *Journal of Small Business Management*, Vol. 56 No. 1, pp. 11-23.
- McAlexander, J., Nelson, R. and Bates, C. (2009), "Developing an entrepreneurial education in a residential college: an exploratory case study", *New England Journal of Entrepreneurship*, Vol. 12 No. 2, pp. 49-62.

- Pittz, T.G., Madden, L.T. and Mayo, D. (2017), "Catalyzing social innovation: leveraging compassion and open strategy in social entrepreneurship", *New England Journal of Entrepreneurship*, Vol. 20 No. 2, pp. 37-52.
- PWC (2019), "PWC 22nd Annual Global CEO Survey", available at: [www.pwc.com/us/en/library.html](http://www.pwc.com/us/en/library.html) (accessed March 1, 2019).
- Rae, D. and Melton, D.E. (2017), "Developing an entrepreneurial mindset in US engineering education: an international view of the KEEN project", *The Journal of Engineering Entrepreneurship*, Vol. 7 No. 3, pp. 1-16.
- Robles, M.M. (2012), "Executive perceptions of the top 10 soft skills needed in today's workplace", *Business Communication Quarterly*, Vol. 75 No. 4, pp. 453-465.
- Schramm, C. (2014), "Teaching entrepreneurship gets an incomplete; colleges are churning out entrepreneurial-minded students, but there's no evidence of benefits yet", *Wall Street Journal (Online)*, ProQuest, May 6 (accessed March 3, 2019).
- Schumpeter, J. (1934), *The Theory of Economic Development*, Harvard University Press, Cambridge, MA.
- Secundo, G., Ndou, V. and Del Vecchio, P. (2016), "Challenges for instilling entrepreneurial mindset in scientists and engineers: what works in European universities?", *International Journal of Innovation and Technology Management*, Vol. 13 No. 5, pp. 1640012-1-1640012-23.
- Seligman, M. (1994), *What you Can Change & What you Can't*, Knopf, New York, NY.
- Sherman, H., Shuart, J. and Weinstein, L. (2007), "From the editors", *New England Journal of Entrepreneurship*, Vol. 10 No. 2, pp. 5-6.
- Tracey, P. and Phillips, N. (2007), "The distinctive challenge of educating social entrepreneurs: a postscript and rejoinder to the special issue on entrepreneurship education", *Academy of Management Learning & Education*, Vol. 6 No. 2, pp. 264-271.
- Worsham, E.L. (2012), "Reflections and insights on teaching social entrepreneurship: an interview with Greg Dees", *Academy of Management Learning & Education*, Vol. 11 No. 3, pp. 442-452.
- Yamakawa, Y., McKone-Sweet, K., Hunt, J. and Greenberg, D. (2016), "Expanding the focus of entrepreneurship education: a pedagogy for teaching the entrepreneurial method", *Journal of Business and Entrepreneurship*, Vol. 27 No. 2, pp. 19-46.

**Corresponding author**

Barrie E. Litzky can be contacted at: [barrielitzky@drexel.edu](mailto:barrielitzky@drexel.edu)

---

For instructions on how to order reprints of this article, please visit our website:

[www.emeraldgroupublishing.com/licensing/reprints.htm](http://www.emeraldgroupublishing.com/licensing/reprints.htm)

Or contact us for further details: [permissions@emeraldinsight.com](mailto:permissions@emeraldinsight.com)