



Edited by
Hugh Thomas
Donna Kelley

Entrepreneurship Education in Asia



Introduction

Hugh Thomas

Entrepreneurship Educators in East Asia share a common quest with our colleagues in all countries: inspiring and equipping the next generation to create a better world, one enterprise at a time. In October 2009, over 200 educators, researchers and practitioners from 50 universities and 19 countries discussed this quest at the Roundtable on Entrepreneurship Education (REE) 2009 in Hong Kong and in Shenzhen. Jointly organized by the Center for Entrepreneurship of The Chinese University of Hong Kong, Shenzhen University and the Stanford Technology Ventures Program, the conference investigated how educators, particularly those at universities, should teach and promote global entrepreneurship – the ceaseless search for potential value creation and the organization of businesses to create that value. This book is distilled from the deliberations of that conference.¹

Most people are not – and probably should not be – entrepreneurs, if by “entrepreneurs” we mean those who start a company. But all people can see problems as opportunities to create value through problem solving. And they should be trained to improve their ability to create value. In this broader sense, all people can be – and should be – entrepreneurs. Entrepreneurship education is a lifelong process that should promote entrepreneurial skills, attitudes, and behaviors to all ages. It should include socially marginalized and disadvantaged groups as well, thereby confronting the ills of modern society.

Our first chapter, “Educating the next wave of entrepreneurs”, is a comprehensive review of effective entrepreneurship education approaches. Written by Karen Wilson for the World Economic Forum (WEF) Global Education Initiative, with advice from experts at the WEF’s Entrepreneurship Education Technical Advisory Group, the chapter takes a global perspective, defining entrepreneurship broadly to include not only building for-profit and social ventures but also taking an entrepreneurial approach to problems in established organizations.

Companies (the chapter mentions AMD, Cisco, Intel, Microsoft and the Goldman Sachs Foundation) can organize conferences, forums, business

plan competitions, training courses for entrepreneurs and faculty, accelerator programs and online tools such as videos and games to practice corporate social responsibility and mentor new value creation. Government policymakers can increase recognition of the importance of entrepreneurship education and encourage cooperation among multiple partners to deliver effective programs. The chapter encourages public and private sector leaders to equip people with the ability and inclination to start businesses and to improve their cultural and institutional infrastructures to support their efforts.

Chapter 1 encourages us to take a variety of approaches. Higher education should focus on growth and opportunity-driven entrepreneurship. Social inclusion should encourage the poor, social minorities, the disabled and other marginalized groups to engage in productive economic activities. Education programs should promote practical innovation and creative problem solving. This means that teaching has to be hands-on, project-based and multidisciplinary. The authors also emphasize the importance of promoting innovation, developing entrepreneurial ecosystems, cultivating effective educators, and engaging with businesses.

While Chapter 1 draws conclusions for educators from a review of the supply side of entrepreneurship education, Chapter 2 looks at its demand. A reprint of the *Global Entrepreneurship Monitor Special Report: A Global Perspective on Entrepreneurship Education and Training*, the chapter surveys the people who have received entrepreneurship education and training, the types of training they have received and the relationship of this training to entrepreneurial attitudes and activity. The chapter is based on random telephone interviews of the adult population in each of 38 countries, with at least 2000 adults surveyed in each country. Additional evidence is presented from a survey of 36 experts (entrepreneurs, policymakers, debt and equity providers and entrepreneurship educators and trainers) in each of 31 countries. Previous GEM research has rated entrepreneurship education as the most problematic factor influencing entrepreneurship in an economy, a finding which motivated the study. Entrepreneurs need external assistance in starting their businesses, so practical entrepreneurship education is important.

The chapter distinguishes between voluntary and compulsory training on one hand, and between formal and informal training on the other. More than one-fifth of the working-age population has received training in starting a business – the average is 21 percent and ranges from 10 to 30 percent, even among countries at similar economic development levels. Around 80 percent of those receiving training have been trained as part of their formal education, showing how important schools, colleges and

universities are in providing a foundation for entrepreneurship. Self-study was the most frequent source of informal training.

The chapter reports a high overlap between formal and informal training. This suggests that formal training provides a foundation for developing attitudes and abilities. Formally trained individuals may subsequently go on to seek specific knowledge and skills informally, whether they start a business or solve problems in existing organizations using entrepreneurial mindsets. These observations reinforce Chapter 1's emphasis on entrepreneurship training as a lifelong pursuit.

Trained individuals are more likely younger, wealthier and more highly educated. Men opt for training more often than women. Training is associated with early-stage entrepreneurial activity more in developed economies than in less developed economies. Training is more accessible and effective for wealthier individuals in developed economies. To achieve equity as well as to further economic development, training and a concomitant emphasis on developing other enabling factors is needed in less developed economies and the less advantaged sectors of developed economies. This conclusion supports Chapter 1's prescription to increase entrepreneurial training among socially excluded groups. Entrepreneurship training – broadly defined – should be made available to the individuals that need it most.

Chapters 3 through 11 present nine papers from different authors describing entrepreneurship education in East Asia. Four of the nine chapters concern entrepreneurship education in China, reflecting China's importance: it has a fifth of the world's population, a quarter of the world's entrepreneurs and over half of the world's entrepreneurs who plan to grow their enterprises rapidly.² The Chinese boom in entrepreneurship has been a major force behind the high economic growth rates in the Chinese economy. And the privately owned economy now accounts for 40 percent of gross domestic product (GDP) and 55 percent of the industrial output. China has the second-largest economy in the world, and will most likely become the largest, in real terms, within the next decade.³

The relationship between entrepreneurship and education in China is complex. Entrepreneurship is a negative function of academic attainment: those with postgraduate degrees are only one-fifth as likely to be an entrepreneur in China as those without.⁴ The Chinese tradition dating back millennia and reinforced through most of the years of the current regime is to study to achieve job security – either in the government or in large companies. Starting a company – or “diving into the sea” as they say in Chinese – has usually been viewed as dangerous and often as morally suspect.

Yet this tradition is under attack. On one hand, the level of status and respect given to entrepreneurs is rising rapidly.⁵ On the other hand, the

number of graduates from universities has gone up fivefold in the last decade, at a time when the demand for educated untrained job entrants has increased far more slowly. Today, while there are frequent shortages of trained workers in the traditional manufacturing regions of China, there is glut of untrained university graduates. The need for students to learn how to become job creators in addition to job seekers was voiced by President Hu Jintao in late 2008 and again, more strongly, in January 2009: entrepreneurship education and practice should be promoted in universities, and college students should be encouraged to start companies upon graduation.⁶

These political calls reinforce a trend started in 1998 when Tsinghua University introduced China's first new business plan competition, and continued the next year when the State Council first mentioned entrepreneurship education. Programs were implemented on test bases in subsequent years and business plan competitions became more popular. But it was not until 2004 that the Ministry of Education made strengthening entrepreneurship education for teachers and students, and encouraging them to start high-tech enterprises a part of its policy.⁷

In late 2008, the Minister of Education, Zhou Ji, called for the strengthening of entrepreneurship education: increasing business startups by student graduates, providing funding for these startups and giving them access to local incubators in economic and technological development zones and industrial parks. He also asked for universities to provide integrated approaches to entrepreneurship education and to stimulate the spirit of creativity and entrepreneurship through teaching, research, student placement and student activities.⁸ This policy shift is currently being implemented through individual university initiatives, which include developing steering committees, incubators, centers, departments and even faculties of entrepreneurship. Measures include increasing interactions with successful entrepreneurs, case analyses, simulations and student projects involving real companies and markets. This movement merges with offering introductory business education (not only entrepreneurship education) to non-business students.

Chapter 3, by Du Guirong, Yu Jinqun and Xu Lei gives an overview of a decade's-long development of entrepreneurship education in China. They report low rates of student entrepreneurship in the face of cultural and institutional constraints. They describe the surge in research on entrepreneurship in general and student entrepreneurship in particular. And they analyze the effects of the most widely publicized entrepreneurship education platform in China, the National Entrepreneurship Plan Competition for University Students – also known as the “Little Challenge”.

The next three chapters come from a team at the Beijing Institute of Technology, grappling with the problem of implementing entrepreneurship education for science and technology students. In Chapter 4, Huo Lingyu, Liu Lijun and Wang Ying compare the Chinese experience with the American one. Notwithstanding the differences – China is less advanced in the integration of entrepreneurship across disciplines but is emphasizing labs, incubators and science parks to a greater extent than the US – readers will be struck by the similarities in obstacles to entrepreneurship education: a passive approach to employment, a resistance to interdisciplinary subjects, a lack of funds, and little room in established programs for new entrepreneurship electives.

China's problems in implementing entrepreneurship education – shallow content, few qualified teachers, immature curricula, insufficient grounding in practice – are further investigated by Wang Ying, who presents her solution in Chapter 5: an integrated platform for entrepreneurship education tailored to Chinese requirements. The reform she suggests is fundamental, involving redesigning the curriculum and inserting major components of real-world practice into the classroom. This builds on programs currently being implemented in China, integrating them onto a single platform.

Chapter 6, by Liu Lijun and Guan Sisi, gives detailed plans for a specific entrepreneurship education program, largely for postgraduate engineering and science students, which they entitle the “Three-Stage Open Process Intellectual Entrepreneurship Program”. Emphasizing that their reforms are not antagonistic to traditional professional education, they outline program structures that they believe can be implemented in the short to medium term.

As China has yet to formalize entrepreneurship curricula, academics and pedagogues, including those featured in Chapters 3 to 6, are mapping creative solutions in collaboration with colleagues, government policymakers and industry practitioners. They are also learning from foreign practice, be it Asian, American or European. The second decade of the 21st century is a truly exciting time to be shaping entrepreneurship education in China.

Entrepreneurship in Japan is as old as entrepreneurship in China is young. As Takeru Ohe describes in Chapter 7, family-based business values – thankfulness, diligence, innovation, thrift and social contribution – stimulated and guided Japanese entrepreneurs in an unbroken history from antiquity to the present day. Yet as Japan becomes the first post-industrial society on earth to experience natural population decline, traditional entrepreneurship has waned. The influence of family traditions on Japan's young has yielded to modern education, the electronics revolution

deployment of specific new competing technologies and business models. The program combines a US focus on early-stage technologies with a Chinese urgency for deployment and growth. The authors discuss how their teaching modules may start from either the entrepreneur's or the investor's perspective, but must always come back to how value is generated by the technology users and how that value is captured by investors in the enterprise.

The themes in this volume are remarkably consistent. University educators, if we are to be relevant to the needs of today's students, must accept the challenge to teach broadly defined entrepreneurship. Yet we do so in organizations ill equipped to foster entrepreneurship. Our hope for success is to break the confines of the classroom and academic specialization. Innovation, multidisciplinary learning and knowledge transfer from the university to the rest of society and from the rest of society to the university are critical. At its heart, entrepreneurship involves understanding consumer problems and solving those problems to create value. This process is inherently project-based and multidisciplinary. The challenge for university educators is to create effective entrepreneurial ecosystems, with our allies in established corporations, government departments, and non-governmental organizations (NGOs) as well as with entrepreneurs – social and for-profit.

NOTES AND REFERENCES

1. Center for Entrepreneurship, *Roundtable on Entrepreneurship Education Asia 2009 Proceedings*, The Chinese University of Hong Kong, 2010.
2. High growth expectations entrepreneurship is the percentage of the population starting companies who expect their enterprises to employ over 20 persons in five years. In 2009, China had 24.2 million high expectations entrepreneurs; India had 1.5 million and the US had 1.3 million. See Thomas, Hugh, Kevin Au, Louis Leung, Wilton Chau, Bernard Suen, Mingles Tsoi, Florence Ho, Wang Weili, Shi Jianling, Zhang Jun, Tian Huan and Yan Lina, *Global Entrepreneurship Monitor 2009 Hong Kong and Shenzhen*, The Chinese University of Hong Kong Center for Entrepreneurship, 2010.
3. Assuming a 6 percent per year differential between the US and the Chinese nominal GDP growth rates, current US and Chinese GDPs of \$14 trillion and \$5 trillion respectively, a service economy that is 68 percent and 42 percent of the US and China economies respectively, goods economy price identities between China and the US and that wages are the only factor in determining the differences between nominal and real service economy output, the Chinese economy's real GDP will exceed the US's in 2020 if US wages are greater than or equal to 2.25 times Chinese wages. Currently US wages are 10 times Chinese wages.
4. Thomas et al., *op cit*.
5. In 2005, 66 percent of Chinese thought that those successful at starting a new business have a high level of status and respect. By 2009 that figure had risen to 79 percent. Ibid.
6. Hu Jintao Address to the 17th Party Congress in October 2008. In the address he said that the strategy of increasing employment would be carried out in part by "encouraging

entrepreneurship to increase employment". See also PRC State Council "Notice on Strengthening Employment of College Graduates", January 2009.

7. Ministry of Education, *2003–2007 Action Plan for Invigorating Education*, 10 February 2004.
8. Zhou Ji, "In-depth study and implantation of the scientific concept of developing a full employment of college graduates in 2009", *Government Statement*, December 2008.
9. Kahn, Joseph and Jim Yardley, "As China Roars, Pollution Reaches Deadly Extremes", *New York Times*, 26 August 2007.