

# HOW INDUSTRY EXPERIENCE CAN HELP IN THE TEACHING OF ENTREPRENEURSHIP IN UNIVERSITIES

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## ABSTRACT

The objective of this paper is to find out how industry experience can lend a hand in the delivery method for an Entrepreneurship course or subject. In this study, the method adopted is the focus group interview, wherein industry practitioners and entrepreneurs share their views on entrepreneurship education and the possible contribution of industry to the universities in grooming entrepreneurs. The findings reveal that entrepreneurs can be trained to a certain extent; internship is the main contribution by industry; and students' attributes are important foundation stones for moulding the students into entrepreneurs. In addition, there is a call for early training of entrepreneurship from primary school and family encouragement from young. The implication to universities is that teaching entrepreneurship as a subject means sharing knowledge with students while teaching it as a course should entail actual opportunities for students to set up businesses. Universities have to go beyond teaching and researching entrepreneurship and turn collaboration with industry into the catalyst for economic growth (Carlsson 2005).

Key words: entrepreneurship education, entrepreneurs, industry practitioners, lecturers, students, universities.

## INTRODUCTION

The role of entrepreneurship in the development of economies has been repeatedly researched. Research findings support that entrepreneurship represents one of the ways in which employment is created and economic development is spearheaded (Shane, 2005; Joseph Schumpeter cited in Binks, Starkey & Mahon, 2006, p.12; Gormon *et al.*, 1997 cited in Jack & Anderson, 1999, p.110). In addition, internal entrepreneurship (intrapreneurship) promotes corporate innovation (Krueger & Brazeal, 1994). The governments in Europe advocated university-business contact to promote economic development (Carlsson, 2005, p.203). In Malaysia, there is increasing recognition that entrepreneurship is vital for growth (Roberts, 2006). However, entrepreneurship education in Malaysia is still in its infancy, as compared to its development in the United States (US), United Kingdom (UK) and Europe (Tih, Rahid, Chamhuri, & Darawi, 2006). There is only a number of Bachelor and Masters degrees in Entrepreneurship offered by the public universities and private university colleges, although entrepreneurship as a subject is quite prevalent. Entrepreneurship programs are generally designed in theoretical frameworks, and a low percentage offer students the opportunity of setting up a business.

As Rasmussen and Sørheim (2006) said, universities are important in entrepreneurship education as they provide direct education to students, an avenue for research commercialization and a seedbed for sowing new ventures. Given the significance of entrepreneurship education, the objective of this paper is to explore ways in which industry experience can help in the teaching of entrepreneurship in universities. The findings in this paper will partially answer Myrah and Currie's (2006, p.248) suggestion 'to investigate what other stakeholders, such as practicing entrepreneurs, view as legitimate and applicable educational practices'.

This paper will begin with a brief literature review, followed by methodology, findings, analysis and discussion, and conclusion.

## LITERATURE REVIEW

The definition of 'entrepreneurship' differs between academia and industry practitioners. Bennett (2006, p.178) views entrepreneurship from the equity and control, rather than innovation, aspect. Cromie (2000, cited in Yusof, Sandhu & Jain, 2006, p.3) has a definition that fits many Malaysian entrepreneurs:

Entrepreneurship is initiating ... and building an enterprise rather than ... watching one. It is the knack of sensing opportunities where others see chaos, contradiction and confusion. It is the ability to build a 'founding team' to complement your own skills and talents. It is the knowledge to find, marshal and control resources ... Finally, it is a willingness to take risk. (Cromie, 2000, cited in Yusof *et al.*, 2006, p.3)

According to Robinson and Haynes (1991, p.41), entrepreneurship has grown over 20 years before 1991 and even at that time, improvements in quality of personnel and program were being reviewed. Up to the present, academic research has been centered on a few areas. On curriculum development, Binks *et al.* (2006) call for the development of current skills and competencies, and Gorman and Hanlon, 1997 (cited in Bennett, 2006, p.168) find that program contents are not uniform. Some researchers like Bennett (2006) feel that the content focus should be on practical business skills. The belief is that when students know the operations of a business, the chances of them succeeding in business are higher. This message is reinforced by Tan and Ng (2006) who advocate collaboration with industry for contemporary curriculum design.

On lecturers' qualifications and commitment, Bennett's (2006) study reveals that teaching commitment can be linked to area specialization or teaching load. The investment in resources and infrastructure is what Robinson and Haynes (1991) consider vital for quality improvement in entrepreneurship education. This is especially so when academic staff may not possess multidisciplinary skills and knowledge to enable them to teach the course effectively (Tan & Ng, 2006).

With regard to delivery mode, the trend is to include activities and alliance with industry. Direct teacher-student method is not favored (von Forster 1971, cited in Binks *et al.*, 2006, p.3). Learning activities together with examinations are recommended (Jones, 2006) whereas team teaching and methods like coaching, mentoring and counselling are promoted (Myrah & Currie, 2006). Some researchers like Collins, Smith and Hannon (2006), Rasmussen and Sørheim (2006) and Tih *et al.* (2006) Johannisson, Landstrom and

Rosenburg (1998), recommend a tripartite approach involving student, faculty and industry practitioner.

On students' aptitude, Lim and Choe (2006) find that business students demonstrate an inclination towards entrepreneurship while family business background is also positively related (Yusof *et al.*, 2006). Interestingly, the probability of a person with a graduate degree or post secondary education ending up in an entrepreneurial firm is twice as high as one who does not (Global Entrepreneurship Monitor report cited in Yusof *et al.*, 2006). Students with an entrepreneurship major are also more inclined to start new businesses and have stronger entrepreneurial inclinations (Kolvereid & Moen, 1997).

Can education in this field meet the expectations of all the stakeholders and are universities the right place to do it (Jack & Anderson, 1999)? Carlsson (2005) is of the view that universities have an important economic development role via entrepreneurs' networking. Jack and Anderson (1999) argue that universities should not be focusing on mass production of graduates for the small and medium sized enterprises (SMEs); they should instead emphasize on having graduates who are reflective practitioners. In this manner, students are able to utilize their knowledge and thinking tools to solve problems, manage risks, be creative and innovative, and exercise their entrepreneurship skills. As supported by Chia (1996, cited in Jack & Anderson, 1999, p.113), the important thing is that the university has done its part by sowing the seeds of entrepreneurial imagination. According to Chapman and Skinner (2006) and Binks *et al.* (2006), collaboration between universities to bring about an effective exchange of students, lecturers and course content can enhance entrepreneurship education.

Most of the research studies reviewed utilize a mixture of primary and secondary data. Researchers focus mainly on surveys of syllabi, students and lecturers. A few studies such as Johannisson *et al.* (1998), Collins (2006), Rasmussen and Sørheim (2006), and Tih *et al.* (2006), involve the industry practitioners as participants.

## **METHODOLOGY**

In view of the significance of the input of industry, this study takes the views of industry practitioners into account. A focus group of 7 entrepreneurs and industry practitioners was interviewed to investigate their view of entrepreneurship, whether entrepreneurship could be nurtured through university education and how they can contribute to the teaching of entrepreneurship courses. This method was chosen as interaction in the focus group can generate rich data (Morgan, 1988, cited in Hussey & Hussey, 1997, p.155).

An observer recorded the focus group proceedings while the analysis of the data is based on content analysis (Hussey & Hussey, 1997, pp.250–253). Since the group was comparatively small, the views of all the participants were taken into consideration.

## **FINDINGS**

The Appendix summarizes the findings from the focus group. Participant F only answered Question 1 and participant G, who was late, only answered Question 2 and Question 3. Some pertinent remarks made are also shown to capture the richness of the data.

*Question 1: Qualities and characteristics of a first class entrepreneur*

Appendix A shows that self-drive, vision and commitment, the right attitude and mentality, and differentiation, adding value and making profits represent the principal qualities of a first class entrepreneur. Risk taking, winning, and learning from others are also considered important. Education and job compatibility, knowledge, values, and sacrifices and persistency are similarly representative of a first class entrepreneur.

Some comments made by the participants are:

- *Self-challenge ... for example, Jon Bon Jovi: he is a brilliant businessman and rock singer. ... he can remain a lead singer and stop there. He has progressed as manager and producer.*
- *Look up to people and learn from them. They have achieved successful businesses (for example, Bill Gates).*
- *Knowledge is no longer an optional thing. Lim Goh Tong of Genting Group had little education but he is successful. Nowadays, knowledge is a necessity and not just an option. ... Can be an empty dream if no specific knowledge about how to do things in a business.*
- *Rabbit must keep pushing and keep improving. If not, the tortoise will catch up. Rabbit did not win as it did not push itself and did not have deadline.*
- *Differentiation is important in this globalised world. Differentiate our products and services. Value add. For example, Singapore banking industry. If we don't have an edge over human resource, cost of production, as such, we have to build in differentiation. For example, internet banking: very fast in Hong Kong. With a valid passport, you can open an account in China. In Malaysia: very slow. Take 2 weeks to approve ATM card.*

*Question 2: Can these qualities of entrepreneurs be nurtured or trained via education?*

The critical factors that the participants of the focus group identified with are hands-on experience, willingness to learn, a relevant education system, industrial training or internship, and education and knowledge. Other determinants are flexibility and creativity, communication, strengths of students, commitment, attitude and mentality, importance of quality teachers, learning from young, and inborn characteristics. The excerpts below indicate why students' training and industry needs do not match:

- *In entertainment industry, don't employ too academically inclined person. They won't compromise. Get someone with hands-on experience. They are willing to learn and will learn faster. Be flexible. Creativity and flexibility. Different people are born with different qualities. Cannot force a person to be an entrepreneur. For example, Tiger Woods can't play tennis. Identify the strengths of students.*
- *Mentality is important. Graduates come for interview with yesterday's mentality. They want high salary and all sorts of benefits that they think they deserve.*

- *Education is a short cut to become a good entrepreneur ... Experience is important. In Malaysia, we don't have much practical training. For example, film camera: students who don't have practical training don't know what it is. ... Entrepreneurs face problems that they don't learn about in books.*

On how this situation can be improved:

- *Internship and it must be from a variety of companies. Companies must provide feedback to schools. Let teachers teach based on feedback. Telling a kid what a tiger is, is not effective. Showing them a tiger is important.*
- *Quality of teachers in local school is lacking. Students must learn from young with proper guidance.*
- *Training courses, especially tailored for industrial people. Get educationist to train industry workers. Learn from historical movies. Learn how to manage people.*
- *Entrepreneurship can be cultivated, can be inspired by leadership. ... must have desire to improve. Don't want to remain a small town boy. Those from rich families may not have the desire to work harder.*
- *The facilitator needs to see the capability of the student and have the ability to point the student in the right direction.*
- *We should incorporate this entrepreneurship syllabus into the primary school teaching. Even in the university, the students don't have the opportunity to set up their own company.*
- *Students that graduate are not creative enough. We are not teaching students about creativity. Students nowadays don't meet industry requirement.*

*Question 3: Can entrepreneurs/industry practitioners help to provide training/teaching of entrepreneurship?*

Teaching keen students, internships, matching education and industry needs, and starting and operating a business are suggestions to enhance training in entrepreneurship education. Other proposals include corporate training by the best in the field, education to incorporate practical experience, a mix of entrepreneurs and lecturers teaching, use of intern company as case study, encourage input or ideas to company, entrepreneurs' talks to students and lessons to include practical examples.

Some statements made by the focus group participants with regards to training are:

- *Training program in corporate sector: pick the best staff in a particular field and let him speak his experience. Practical things are learnt.*
- *Co-relationship between education and entrepreneurship. However, in Malaysia, education does not create talent. We don't have the right system to create talented entrepreneurs.*
- *Entrepreneurs can share his views with students but can't teach them in a formal academic way. ... Need a blend of entrepreneurs and academicians. ... Impressive speaker can inspire students. Let students have a different perspective.*
- *What the school hopes to achieve and what the industry needs are different. School system can be rigid. In UK and US, a few large firms employ students from (certain) universities as they have studied areas required by the company.*

- *Academics deal with things differently than businessmen but the message they are trying to convey is the same. ... Only setback is that academics can't give more practical examples.*

Internships: there are two schools of thought – internship in SMEs or large companies?

- *Going to SMEs to learn might not be the right thing. SMEs don't have the right structure to support internship. SMEs may not properly document things. Internships: is just doing little things in the office, is acquiring skills. It does not provide the opportunity to learn how to run a business.*
- *Big firms offer internship to have a corporate image. Offering internship is part of their day-to-day approach. Internship is challenging for SMEs but can be more valuable compared to large organisations.*
- *Internship: match students' background with job requirement. Create a real environment for them. Interns: the attitude is not good. Not humble. Not keen to learn and (are) lazy. Proud. Previous generation better – willing to learn.*

Is English Language or other languages equally useful in communication?

- *Entrepreneurs: language is important. They must be able to communicate.*
- *In China, they are not good in English but they are good in running business. In China, students are trained by entrepreneurs and not necessarily by academics.*

Students to learn how to operate a business before they can successfully graduate:

- *Entrepreneur must learn to take risk and they must know how to run a business. Interns don't learn these things.*
- *If a student learns entrepreneurship and does not practise it, then it is a waste. You must be in business, then it is worthwhile studying. For example, just like teaching someone to play piano and not giving them the piano to practise.*
- *For example, come out of National University of Singapore with an entrepreneurship course. Students put money in business and start up Hardware Zone (IT magazine) and it is making money. Part of the project is to get students to start a business.*

## **ANALYSIS AND DISCUSSION**

The findings are analyzed from the perspective of students, lecturers and lecturers' delivery method, curriculum, industry practitioners/entrepreneurs, and universities:

### **From the Perspective of Students**

The characteristics including attitude of the students enrolled in the Entrepreneurship course are important. The views of the focus group show that first class entrepreneurs will generally possess characteristics like self-drive, vision and a dream, commitment, and the right attitude to work, creativity, the sense of direction and the ability to manage risk.

Bennett (2006) also similarly identifies many of these characteristics as attributes of entrepreneurs. Jones (2006) says that energy and excitement from both the student and lecturer are important; the focus group's 'self-drive' would be equivalent as it involves continuous energy and passion to achieve an end.

There are 2 schools of thought among the participants as to whether students who do not possess such characteristics can be trained. One view is that students without such characteristics should not be forced to become entrepreneurs. For example, what Rosa (1992, cited in Jack & Anderson, 1999, p.120) says, enterprising attitudes and competencies are requirements in starting a venture as well as to thrive in business. Competencies can be trained but can attitude be trained too?

Littunen (2000) and Shook *et al.* (2003) (both cited in Bennett, 2006, p.170) agree. According to them, an entrepreneurial experience and responsible positions positively affect attitudes. Bennett (2006), who views entrepreneurship as a 'learned competency' in which traits can be nurtured and trained through an educational program, supports this. Carey and Naudin (2006) also agree that creative industries students can build up their entrepreneurial spirit in universities. These views reinforce that students can be trained in entrepreneurship.

Those who have the inherent characteristics and training will benefit even more. For example, candidates in 5 Sweden universities are interviewed and specially selected for the Entrepreneurship course (Rasmussen & Sørheim, 2006). The UNITAR study (Yusof *et al.*, 2006) and the UTAR study (Lim & Choe, 2006) also suggest that the inclination and attitude of students towards entrepreneurship play an important role in influencing the outcome of the course.

Another focus group finding is that students need to be trained from young (primary school) to inculcate the culture of entrepreneurship. This is supported by Krueger (1993, cited in Krueger & Brazeal, 1994, p.101) who points out that family values mould students from young. In Malaysia, the Young Enterprise Programme for secondary school students partly contributes to this initiative (Pardas, 2006, p.C2).

One focus group finding is that an entrepreneurship program would have failed if the student did not become an entrepreneur. Binks *et al.* (2006) demonstrate that the entrepreneurial characteristics that universities hope to inculcate in students, such as creativity, the ability to identify opportunities and risk management, are also greatly demanded by large organizations. This opens up the dearth of student demand for entrepreneurship education. Moreover, entrepreneurship education can be for start-ups as well as employment (Young, 1997, cited in Jack & Anderson, 1999, p.116). Students can also develop the enterprise motivation and culture (Carey & Naudin, 2006) and learn how to be 'street wise' (Ian Grant, 1993, cited in Jack & Anderson, 1999, p.116).

### **From the Perspective of the Lecturers and Lecture Delivery Method**

A focus group finding is that the theory to be taught by both lecturers and industry practitioners or entrepreneurs is the same but the teaching approach is different. The knowledge, skills and experience relevant to entrepreneurs are not best delivered using the conventional pedagogy method (Jack & Anderson, 1999). Many lecturers in local universities have neither experience in industry nor starting companies. Bennett (2006) supports this view. Moreover, lecturers teaching this subject are mostly specialized in fields

like marketing, accounting and finance, human resources and operations management, but the teaching of entrepreneurship calls for multiple disciplines (Bennett, 2006; Binks *et al.*, 2006; Tan & Ng, 2006). This is a barrier to effective teaching of the subject (Sexton & Bowman, 1984, cited in Bennett 2006, p.172) because the teaching method is tailored to that for the management subject. One way to tackle this is to encourage team or joint teaching across collaborative institutions (Chapman & Skinner 2006). Myrah and Currie (2006) propose team or integrated delivery. In addition, lecturers may not venture outside the academic networking to industry and commercialization of research (Slaughter & Leslie 1997 cited in Binks *et al.*, 2006, p.5); the UK's Medici Fellowship Scheme (Binks *et al.*, 2006) addresses this issue and the findings support that human and social capital development can be derived for both academe and industry.

If instructors lack industry experience, the methods of delivery will probably be lectures and assignments. As found in Bennett's (2006) study, 95% of the lecturers give formal lectures, 8% have field projects and less than 2% practice brainstorming sessions with their students. A more action-oriented teaching method is preferred, according to Bennett (2006, p.171), who cited Rae (2000), Fiet (2001) and Carayannis *et al.* (2003). An active learning process that involves 'role plays, management simulations, brainstorming, team projects, and participative discussion sessions' should be prioritized over passive listening and note-taking by students. Another experiential learning method is problem-based learning (Tan & Ng, 2006). Tih *et al.*'s (2006, p.5) triangulation approach of 'Experimental Management Method' produces creative and innovative proposals by students.

The conventional teaching pedagogy still has its value since the science part of entrepreneurship can be taught in this way (Jack & Anderson, 1999). However, it should also have industry input, as advised by the focus group. The 'critical need for instructors to have the relevant entrepreneurial and business experience in order to teach this subject area' is well supported by 50% of the participants in Myrah and Currie's study (2006). According to them, it is a challenge to find someone with qualifications and practical experience to teach entrepreneurship, a scenario that is familiar in Malaysia as well.

Speakers from the industry and internships can supplement current teaching methods, according to the focus group. These speakers can share their experience with the students while internships will expose the students to experiential learning. Carey and Naudin (2006) advise inviting local entrepreneurs rather than high-flyer entrepreneurs to speak so that students can identify with a more realistic ambition. However, according to Fiet (1998, cited in Jack & Anderson, 1999, p.119), having case studies or listening to entrepreneurs share their experience, is inadequate; students need to know theory to understand these experiential accounts. Binks *et al.* (2006) also promote a multi-sectoral approach, emphasizing the significance of the collaboration efforts of the industry, university, financial institutions and various development agencies in the successful transfer of technology and knowledge.

As highlighted by the focus group, the value of internships will depend on the learning opportunities that the host company offer. If the internship is relevant, the benefits of internship are aligned. Another focus group viewpoint is that internship itself is insufficient to produce entrepreneurs; the students need to be able to experience taking risk and doing their own business. The development of relevant skills demanded by industries is realized via the Graduate Placement Program and Shell Technology Enterprise Programme which

subsidize employment of students in SMEs and which provided students with

'opportunities to gain practical experience in SMEs through task oriented assignments or projects and to apply classroom-based learning solutions to real life workplace problems'. (Westhead & Matlay, 2006 cited in Binks *et al.*, 2006, p.5)

This program reveals that internships in SMEs are useful, supporting one focus group view that internships should be with SMEs and not with large companies. Such successful examples indicate that the tripartite collaboration works in the absence of students being allowed to run actual businesses.

The preferred approach in entrepreneurship education is for the lecturers to take on the role of facilitators, to provide guidance and advice to students. This is practiced in Tih *et al.* (2006), where students will be trainees who translate business concepts into practice as they work closely with SMEs. The students visit the business operation, interview the owner-operator and personnel, conduct market surveys, and develop a business plan. The lecturers will constitute the advisory and sounding boards for the students. Hynes's (1996, cited in Myrah & Currie, 2006, p.238) Process Model of Entrepreneurship integrates students, course content, and didactic, skill building and discovery teaching. Given the right approach, students can achieve improvements in self, knowledge and career. Another example of a successful method of effectively teaching entrepreneurship is the Technological Innovation: Generating Economic Results (TI:GER) (Binks *et al.*, 2006), a multi-disciplinary collaboration between Georgia Institute of Technology and Emory University in the US. It 'focuses on integrating science, engineering, business and law for the commercialisation of innovations in the global marketplace' (p.4).

### **From the Perspective of Curriculum**

Entrepreneurship courses designed by universities are varied, ranging from mainly business and management syllabi to non-examination based courses to lectures combined with running a business. The mixture of lack of experience in both students and lecturers may lead to overdependence on theory (Jack & Anderson, 1999), and failure to cater to the evolving business requirements (Jones & English, 2004, cited in Tih *et al.*, 2006, p.2). Much curriculum content is structured based on Gibb's (1993) didactic model (cited in Rasmussen & Sørheim, 2006, p.187) as an action-oriented model is more appropriate in the teaching of entrepreneurship (Johannisson *et al.*, 1998). Binks *et al.*'s (2006, p.13) industry practical approach involves 'academic learning, reflective self awareness/self awareness, and experiential learning': learning in groups, mentoring by industry practitioners and reflecting on their experience via recordings, logbooks and presentations.

Students' own activities are used as case studies for learning (Binks *et al.*, 2006), drawing a similar parallel to the focus group's proposed utilization of intern company as case study. Rasmussen and Sørheim's (2006) call for coupling of students and research-based ideas, which expose students to a greater quantity and better quality ideas, a recipe for start-ups' success. Jack and Anderson (1999) lend support by encouraging students to work with students from other disciplines and entrepreneurs in order to expand their creative business boundary. The Shared Values Framework proposed by Myrah and Currie (2006) integrating vocational (competence and/or practical utility) and liberal (knowledge and intellectual intelligence) frameworks, is another step towards achieving a balance between

industry and theory. Binks *et al.* (2006) advocate multidisciplinary research to increase cross sharing of discoveries, developments and methodologies. Tih *et al.* (2006) find that students' interest in studying entrepreneurship is enhanced when they have been involved in a more industry-based education programme.

Learning activities can include presentations, workshop game, case study discussion, reflection journal, a major assignment and final examination wherein the students determine the delivery mode and experience learning that 'mimic the entrepreneur's way of life' (Jones, 2006, p.346). Okudan and Rzasa (2006) trace the transformation from a lecture and problem-based learning approach to incorporate project and team-based assignments simulating a real business situation and an interactive style of teaching with presentations and self-reflection. Although these and Tan and Ng's (2006) simulation, writing and visualizing and reflection are action-oriented programs, they cannot entirely substitute for the experience of owning a company where risk-taking prevails, according to a focus group participant.

Some curriculum involves mentor-based advisors (entrepreneurs) who give advice on every step of the business (Binks *et al.*, 2006; Rasmussen & Sørheim, 2006). However, Carey and Naudin (2006) highlight that it is not easy to find people who are qualified and competent to act as mentors and lecturers. Perhaps team teaching can help to ease this challenge (Collins *et al.*, 2000).

Findings from the focus group encourage students who undergo internships to provide feedback on the relevance of their course to the work to effect curriculum changes. As Binks *et al.* (2006) argued, the role of the university in a knowledge-based economy has to change to incorporate business and educational mission integration. It is also suggested that education should be treated like a business and that practitioners can be invited to share their experiences via speakers' lectures on a payment basis, to entice more practitioners to talk to students. However, this brings into question the social responsibility of entrepreneurs and industry practitioners; entrepreneurs' preference to be seen benefiting, not exploiting communities (Krueger & Brazeal, 1994).

The participants in the focus group have indicated that the present education system is not conducive to producing creative and talented students in the field of entrepreneurship. Porter (1994 cited in Tih *et al.*, 2006, p.2) concurs as traditionally, business schools' quantitative and corporate training take precedence over creative entrepreneurial skills. Binks *et al.* (2006) agree that entrepreneurship education should comprise the generic process like creativity and problem-solving abilities, and the operational context like business skills and knowledge. Kolvereid and Moen (1997) find that it is more probable for graduates who majored in entrepreneurship to set up their own businesses.

The curriculum can incorporate other activities to increase interaction and support for education in entrepreneurship. These can include summer internships, student clubs/events, tech commercialization projects, and entrepreneurs' challenge (Chapman & Skinner, 2006). In Malaysia we have similar activities like the HSBC Young Entrepreneur Awards (HSBC, 2006) and the Young Enterprise Programme, organized by the American Malaysian Chamber of Commerce (Pardas, 2006).

### **Industry Practitioners/Entrepreneurs' Perspective**

The focus group has called for students to start up companies and face real risks. This could be achieved via the 'business generation model of entrepreneurship education' (Rasmussen & Sørheim, 2006, p.192) in Sweden where 5 universities provide funding and infrastructure to groom students through 'learning by doing' to start up companies; in one university 200 student start-ups were registered within a period of five years. Some universities overseas have very close collaborations with the industry practitioners. These industry players are willing to mentor (Binks *et al.*, 2006), and allow their companies to be case studies (USASBE, 2006), thus permitting the students to look at real business issues and solve real problems. Other modes of initiatives include mentoring students (Robinson & Haynes, 1991 cited in Jack & Anderson, 1999, p.119), advising students who run their own businesses/projects, reviewing and listening to business plan presentations (Tan & Ng, 2006), and sitting on the Board of Directors of companies (Rasmussen & Sørheim, 2006). Other professionals who can contribute include lawyers, accountants, tax advisers, information technology professionals, company secretaries, investment bankers, bankers, and venture capitalists. Industry practitioners can play the role of external entrepreneurial advisors so that students can prepare realistic business plans (Myrah & Currie, 2006).

Entrepreneurs also benefit from helping in entrepreneurship education: they can learn from nascent entrepreneurs in unexpected ways (Collins *et al.*, 2006) and 'together with past analogies, to reveal the genuine entrepreneurial talents they nurture in their own context' (Johannisson *et al.*, 1998, p.480). However, they highlight that it is not easy to find fresh entrepreneurs to participate in such a program and facilitate an entrepreneurship class, a feature reminiscent of Malaysian entrepreneurs. Corporate sponsors are easier to find as in the 2006 Young Enterprise Programme, there were 27 corporate sponsors (Pardas, 2006). As Krueger and Brazeal (1994) say, entrepreneurship is more evident in supportive environments: Malaysian entrepreneurs can be involved in ways like Discovering Entrepreneurship Programme between nascent entrepreneurs, entrepreneurs and lecturers (Collins *et al.*, 2006).

### **From the Perspective of Universities**

The support of the institution to ensure the requisite infrastructure and personnel are available to teach the entrepreneurship course well is an essential ingredient of success (Myrah & Currie, 2006). A learning orientation in education can encourage the development of entrepreneurship characteristics (Krueger & Brazeal, 1994). However, to involve new methods of teaching, innovative methods of collaboration with the industry practitioners/entrepreneurs, and having the funds for students to set up their own companies, the support of the university management is required. This support is significant in view of the commitment of physical (like idea laboratories (Rasmussen & Sørheim, 2006)) and human resources (training of lecturers (Myrah & Currie, 2006)). Funding is also important. In Malaysia, some governmental agencies like Majlis Amanah Rakyat provide funding to fresh graduates in new business ventures although past failure records and the lack of business acumen have increased reluctance of financiers to do so (Mohd Fauzi *et al.*, 2006, cited in Tih *et al.*, 2006, p.2).

Given the importance of the role of industry and other sectors, the university model, according to Binks *et al.* (2006, p.11) 'would include a network of practitioners with appropriate assessment tools, experience and intellectual property solutions and with sophisticated outreach capabilities'. Educational institutions also need to provide some avenue for risk-taking by lecturers and students (Myrah & Currie, 2006) especially when they need to feel the business and risk-taking (also proposed by focus group). The 7 strategies suggested by Myrah and Currie (2006, pp.240-250) to support entrepreneurship educators, notably administrative support, experiential approach, links with stakeholders, communicating with other educators, critical reflection, interdisciplinary conversations, and entrepreneurial and social responsibility, have been covered by one researcher or another. This supports the significance of these strategies to achieve successful entrepreneurship education.

Aberdeen University (Jack & Anderson, 1999) is an example where students from non-business majors like bio-medic PhDs, pharmacologists, environmental scientists and zoologists are taught entrepreneurship. They practice mentoring, steering committee, visiting entrepreneurs, entrepreneurship dinner, and student presentations. Among these, the focus group has only suggested visiting entrepreneurs. The university needs to play a more active role in promoting collaboration between universities. Collaboration between University College London and London Business School promotes entrepreneurship education (Chapman & Skinner, 2006). The collaboration 'has led to successful mechanisms for effective student and staff exchange between the two institutions' (p.397). To successfully convince the conventional university education system to accept such new challenges and new experiential learning approaches will yield immense practical benefits.

## **The Way Forward**

The participants in the focus group are of the view that elements of entrepreneurship may be taught but there is still a lot of experiential learning to be carried out before students can have a chance to become entrepreneurs. There are challenges in the classroom such as the inexperience of lecturers and the size of the class. Big classes make it difficult to give individual tuition to aspiring entrepreneurs who have ideas that need to be shaped and developed. It may be realistic only to teach business skills and not entrepreneurship itself. Teaching entrepreneurship business skills is very plausible since most if not all business courses would have offered the basic framework in accounting, economics, finance, marketing, operational management, human resources and investment in their syllabi.

The author opines that an entrepreneurship course prepares the students to be entrepreneurs, just like a degree in engineering or psychology prepares students for professional careers. It is essential but not sufficient because the practice of entrepreneurship cannot be covered satisfactorily. The students may or may not turn out to be entrepreneurs. It is this preparation that should be the focus. To meet this objective, it is proposed that an education model be constructed for universities in East Asia. Under this model, the curricula of an entrepreneurship course would include, not exhaustively, the basic principles of running a business and this can be taught in the classroom. Once the students have acquired this knowledge, it is proposed that as part of the graduation requirement, that they set up a company from year 2 of their undergraduate degree course

and the outcome of their success be judged on stipulated key performance indices (Kaplan & Norton, 1996) based on key result areas identified. It is further proposed that a key condition is that the company is established based on a joint venture with one of the established industry entrepreneurs. The university could form linkages with a panel of entrepreneurs and students could select and be interviewed by the industry entrepreneurs for acceptance into the enterprise.

The benefits to the students include hands-on experience in setting up and running companies while undergoing the degree course. The gains that could accrue to industry entrepreneurs include having free and available trained resources, which could be further harnessed to benefit their existing companies. It is proposed that the industry entrepreneurs permit a program of this nature to be formed within their business groups, and that they have the final prerogative to dispose of the company, if they so wish. The nature of business of the company should not involve a lot of capital. The equity sharing could be established so that the student entrepreneurs would feel the excitement and risk of being shareholders of companies. The industry entrepreneurs could act as advisers to the student entrepreneurs while permitting the latter to face the day-to-day operational challenges. It is this plunge into the real world that would help to churn out more students who would desire to be entrepreneurs when they graduate. The question that may arise from this model would be to balance operating companies with satisfying academic requirements. A possible solution is to utilize and convert ongoing experiences into academic assessments that are formulated to meet academic standards. An additional challenge would be to convince industry entrepreneurs to share in this education model since indications from the focus group show that industry entrepreneurs could only spend time as invited guests to speak to students and to absorb students for internship programs.

In implementing enterprises, universities have to impose strict entry qualifications accompanied by stringent interview requirements to select candidates who are eligible to study entrepreneurship. In this way, the chances of amalgamating academic studies and entrepreneurship in the real world would stand a higher probability of being successful. It is hoped that academics and industry practitioners would support this venture and continuously work hand-in-hand. Without this strong rapport between industry and academe, it is unlikely that an entrepreneurship course would be successful.

In order to drive this education model, there exist various lead-managers. One proposal is to have a lead university with strong corporate networks to be the driver to try out this model and make modifications along the way. Upon successful implementation, this model can be replicated for other universities. Another alternative would be to invite the various chambers of commerce to drive the model. This would be challenging given the time constraint of entrepreneurs and their need to see direct and quick benefits. Yet another driver could take the form of the government to exert its influence by providing incentives to educators and industry entrepreneurs to work together to produce more entrepreneurs for the nation. To sum it up, a tripartite leadership involving the educators, the entrepreneurs and the government can be considered the most desired and has the highest probability of success.

## CONCLUSION

There are two schools of thought on whether students can be trained to become entrepreneurs. One school of thought advocates that entrepreneurship can be taught and students therefore can become entrepreneurs after attending an entrepreneurship course. The other school of thought views that entrepreneurship is an inborn flair and cannot be taught; hence students will not be able to learn to be entrepreneurs. This paper argues that entrepreneurship can be learned if the teaching and support infrastructure is designed to teach basic skills and then guide the students as they set up entrepreneurial ventures. The answer seems to be 'yes', it can be taught, a view shared by Johannisson *et al.* (1998, p.1), Krueger and Brazeal (1994) and Roberts (2006). Lecturers are encouraged to keep trying and experimenting with different methods of teaching – the incentive is to use more experiential based learning and if possible, and where funding is available, setting up a real company should be the ultimate aim. Lecturers who are qualified in industrial or entrepreneurship experience are in short supply, but if the universities provide support, more experienced and trained lecturers, and entrepreneurs may be willing to collaborate with the universities. Industry practitioners and entrepreneurs should help to groom future entrepreneurs for the economy; in turn, they may reap rewards in the form of new creative ideas.

The focus group findings are in line with the literature as the participants have called for a more experiential based learning. Contrary to Kolvereid and Moen's (1997) study, setting up a company is considered the fruit of the course – besides hatching new business starters and owners/managers, increase entrepreneurship via teaching, consulting and research. In terms of contribution in education, industry practitioners/entrepreneurs are only willing to provide internships and give public lectures, a far cry from practices in the west where much progress has been made.

The author has proposed an education model for East Asia and proposed 3 alternative or collaborative drivers to turn it into a reality. They are the educators, entrepreneurs and government.

The main limitation of this study is that the focus group's opinions are not reflective of the views of the industry practitioners/entrepreneur population in Malaysia. However, it provides an insight into the industry practitioners/ entrepreneurs' thoughts. Future research may cover the success of programs that offer company ownership; experiential teaching methods; and focus on university-industry dialogue.

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**APPENDIX: SUMMARY OF FOCUS GROUP FINDINGS BASED ON CONTENT ANALYSIS**

Participant	Question 1: Qualities and Characteristics of a First Class Entrepreneur												
	Self-drive	Takes risks	Has vision & commitment	Compatibility education & job	Possesses knowledge	Right attitude & mentality	Differentiation & value add & profits	Winning	Has values	Leams from others	Sacrifice & persistency		
	a	b	c	d	e	f	g	h	i	j	k		
A	7X	1X				1X							
B	6X	5X											
C	2X		3X				1X		1X	2X	1X		
D	1X		3X		7X	2X	2X	2X		1X			
E	14X		6X	1X		3X		4X					
F							4X						
Question 2: Can these Qualities of Entrepreneurs be Nurtured or Trained via Education? Critical success factors area:													
	Hands-on experience	Willingness to learn	Flexibility Creativity	Communication	Strengths of students	Commitment	Attitude & mentality	Relevant education system	Industrial training /internship	Importance of quality teachers	Learn from young	Education & knowledge	Inborn characteristics
	a	b	c	d	e	f	g	h	i	j	k	l	m
A	1X	2X	3X		1X	3X	3X	1X					2X
B	3X							1X	11X	1X	1X	1X	2X
C	2X			1X					4X			5X	1X
D	2X	4X				3X		1X	4X			4X	
E	2X	2X		1X		1X		1X	6X	3X		3X	
G								2X		1X	2X		1X
Question 3: How can Entrepreneurs/Industry Practitioners Help to Provide Training/Teaching of Entrepreneurship in Universities?													
Suggestions:													
	Corporate training by best person	Teach keen students	Education to Incorporate practical experience	Blend of entrepreneurs & lecturers	Use of intern company as case	Interns' input/ideas to company	Entrepreneurs giving talks	Internship	Education matches industry needs	More practical examples in lessons	Start & run a business		
	a	b	c	d	e	f	g	h	i	j	k		
A	2X	3X	4X										
B				1X	1X	4X	3X	7X	1X				
C	1X	2X						3X			1X		
D									10X				
E		3X								1X	4X		
G							1X	4X			10X		