



# Issues in Experiential Entrepreneurship Education – Introduction to the Special Edition

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**Abstract.** Experiential and self directed learning pedagogies can help improve the self-efficacy of potential entrepreneurs, as well as provide insights from exposure to role models, markets, networks and business processes that can assist graduates to develop more successful ventures in the future. However, immersion experiences can also provide a wake-up call for students who over-estimate their own capabilities and/or under-estimate the complexities and difficulties inherent in the commercialisation of innovations and the growth of new or established enterprises. In effect, experiential educational programs can filter out students who realise they lack the skills, desires and/or intentions to ever become entrepreneurs from those who want to delay their entrepreneurial ambitions until after working for established organisations for some years or those who wish to continue with the development of their own ventures. The benefits, then, are two-fold: helping students to select appropriate career paths (e.g. to start one's own business or work for someone else); and developing "real world" knowledge and skills that contextualise theory (for both groups of students) and improve practice (for those who wish to create their own ventures). The following articles in this special edition of the *International Review of Entrepreneurship* focus specifically on the particular roles that immersion, collaboration and network development, and technology-based distance learning play in enhancing learning experiences. In this Introduction we also reflect on how coaching and mentoring can further improve effectiveness.

**Keywords:** experiential learning, self-directed learning, coaching.

## 1. Introduction

In Europe the "Bologna process" (European Commission, 2008) recommends the recognition of non-formal learning, the development of flexible curricula to accommodate student and staff mobility, and enhanced university-employer collaboration in innovation and technology transfer. These strategies are equally applicable to many other economies, reflecting common environmental shifts in areas such as technology (e.g. growing importance of information and computer technologies), business (e.g. increasing internationalisation), education (e.g. emphasis on innovation and entrepreneurship), and society (e.g. concerns about sustainability).

Bologna-like policies encourage educational institutions to act as economic growth engines through industry collaborations and the commercialisation of innovations developed by their own faculty, as well as helping industry and

society at large by developing an educated workforce (Plummer and Taylor, 2004). In many countries there is a growing reliance on universities and other education institutions as drivers of local, regional and national prosperity (Bramwell and Wolfe, 2005; Charles, 2003; Harloe and Perry, 2004; Huggins, Jones and Upton, 2008; Lazzeretti and Tavoletti, 2005). There is also increasing recognition of the important economic roles that graduates of entrepreneurship education programs play through developing their own successful ventures or helping established businesses to innovate and grow (Blackford, Sebor and Whitehill, 2009).

Increasingly, secondary schools, universities and other educational institutions are encouraging entrepreneurship through formal and informal education, coaching and mentoring programs, as well as encouraging their students to take part in enterprise development and business planning competitions (e.g. Birdthistle, Hynes and Fleming, 2007; Klofsten and Spaeth, 2004; Lewis and Massey, 2003; Mars, Slaughter and Rhoades, 2007; Silvius 2006). However, Harloe and Perry (2004) point out that educational institutions, regions, and the links between them, differ widely and have called for more local, national and cross-national case studies to gain a better understanding of how internal and external factors impact on institutions' abilities to interact with their local communities to generate economic wealth. There is also a need to investigate the effectiveness of entrepreneurship education programs in different contexts (Alberti, Sciascia and Poli, 2005).

The special edition of this journal addresses these calls by reflecting on the effectiveness of two Irish entrepreneurship programs (coincidentally both offered at the University of Ulster), an innovative Canadian program that combines engineering and entrepreneurship, and a comparison of three extra-curricular entrepreneurship programs for tertiary students in New Zealand (more about this later in the introductory article). A common element in all these cases is the impact of experiential learning on the entrepreneurial self-efficacy of participants (Cox, Mueller and Moss, 2002). Earlier versions of all these articles were presented at recent McGill International Entrepreneurship Conferences.

The structure of this introductory article is as follows: the next section will briefly discuss key issues when assessing the effectiveness of experiential and self-directed entrepreneurship learning programs, and then focus on the particular roles that immersion, collaboration and network development, and technology and distance learning play in enhancing learning experiences. We will then reflect on how the three articles in the special edition contribute to our knowledge in these areas. The next section will consider how coaching and mentoring can further improve effectiveness, while the final section will suggest areas for further research.

## **2. Assessing the Effectiveness of Education Programs**

In discussing methods for measuring the impact of small business support policies, Storey (2002) draws a distinction between monitoring (e.g. take up rates; opinions of those assisted; perceived advantages) and evaluation techniques (e.g. comparing those that were and were not assisted; matching recipients with control groups; addressing self-selection and administrative selection biases). The former could be considered accounting measures, whereas the latter methods provide information on effectiveness. In a similar way, it could be argued that when assessing the impact of entrepreneurship education programs, researchers should attempt to isolate the “added value” components (e.g. the extra benefits that participants gain when compared to similar groups of non-participants). There is evidence, for example, that those who undertake tertiary level entrepreneurship study are more likely to start new ventures after graduation (e.g. Charney and Libcap, 2002; Blackford, Sebora and Whitehill, 2009), and enjoy higher incomes and greater job satisfaction (e.g. Charney and Libcap, 2002; Blackford, Sebora and Whitehill, 2009) than those who do not participate in entrepreneurship education. Entrepreneurial graduates also appear more likely to be involved in technology transfer from universities to the private sector and are more likely to develop their own high technology enterprises (Charney and Libcap, 2002).

However, the cause and effect relationships can be complex and sometimes appear counter-intuitive. Although some studies do indicate that entrepreneurship education can help improve the self-efficacy of potential entrepreneurs (e.g. Charney and Libcap, 2002), others show that students who participate can perceive they have lower capabilities and more limited beliefs about whether entrepreneurial goals are attainable than those who do not enrol (e.g. Cox, Mueller and Moss, 2002). The authors of the latter study surmised that the introductory course that was the subject of their study may not have emphasised capability enough and/or deflated the bravado of over-confident college students. Another apparent paradox for entrepreneurship educators is that work experience may be a more important trigger to the establishment of a new venture than formal education. For example, a study of the early environment and schooling experiences of 1,001 owners/founders of high technology businesses in the USA with under 200 employees revealed that entrepreneurs considered job experiences (21.5%) and a technology idea/invention (12.6%) to be more important triggers than high school or college courses (3.6%). However 26.1% of respondents conceded that tertiary education was a very important consideration in their decision to own or start a business, although technology work experience was again more salient (55.1% rated this as very important).

Educational institutions can help bridge the apparent work/study divide, though. Previous studies have emphasised the importance of providing “real world” experiences for entrepreneurship students to encourage entrepreneurial

potential and to reinforce and improve essential capabilities (e.g. Bird, 2002; Solomon, Duffy and Tarabishy, 2002; Galloway and Kelly, 2009; Man and Yu, 2009). Benefits of immersion techniques, where students are encouraged to set up their own ventures and/or help existing entrepreneurs to commercialise innovations, include the development of entrepreneurial capabilities, attitudes, and intentions, and the contextualisation of theory. In the case of high technology, experiential education may also help nascent entrepreneurs to become adept at seeking and implementing new products but also provide spill over effects to the broader society by improving technological responsiveness, risk taking and knowledge transfer (Charney and Libecap, 2002).

Adding a self-directed learning dimension enables students to have higher degrees of autonomy, self-management, independence and control over their studies (Bird, 2002). Incorporating Web-based technologies, including distance teaching, not only improves program flexibility and accessibility, but fosters technological and educational innovations and cross-disciplinary (e.g. entrepreneurship and technology) learning (Kourilsky and Walstad, 2002; Solomon, Duffy and Tarabishy, 2002). Encouraging networking between students, tutors, clients, entrepreneurs and mentors can facilitate information transfer and the exchange of experiences (van der Kuip and Verheul, 2004). Furthermore, improving social interactions between stakeholders is likely to provide a more positive learning experience for all concerned (Man and Yu, 2009). Adding self-directed learning, technology and networking to the experiential mix, then, should improve the impact of entrepreneurship education programs.

The links between education, self-efficacy and new venture creation do warrant closer scrutiny, though. It is worth remembering that the initial experiences for students could still be unsettling. Authentic programs provide students opportunities to experience the reality of entrepreneurship, including the difficulties they are likely to face (Man and Yu, 2009). As alluded to earlier, immersion experiences can provide a wake-up call for students who over-estimate their own capabilities and/or the complexities and difficulties inherent in the commercialisation of innovations and the growth of new or established enterprises (Cox, Mueller and Moss, 2002). In effect, experiential educational programs can filter out students who realise they lack the requisite skills, desires and/or intentions to ever become entrepreneurs from those who want to delay their entrepreneurial ambitions until after working for established organisations for some years or those who wish to continue with the development of their own ventures. The benefits of experiential education, then, are two-fold: helping students to select appropriate career paths (e.g. to start one's own business or work for someone else); and developing "real world" knowledge and skills that contextualise theory (for both groups of students) and improve practice (for those who wish to create their own ventures). Although still subject to some debate, the personal qualities that should be fostered include ability to cope with uncertainty,

problem solving, decision-making, flexibility, opportunity recognition, innovation, networking and a willingness to learn from both positive and negative experiences (van der Kuip and Verheul, 2004). Experiential and self directed learning can also provide insights from exposure to role models, markets, networks and business processes that can assist graduates to develop more successful ventures in the future (Charney and Libecap, 2002).

The following section discusses the contributions the articles in the special edition make to our knowledge about the challenges and benefits of experiential entrepreneurship education.

### **3. Improving Understanding of Key Issues**

The first article, entitled “Developing Entrepreneurs through Experiential Learning: The Master of Business, Entrepreneurship and Technology program at the University of Waterloo, Canada”, looks at an innovative Masters program which blends entrepreneurship and engineering. The authors, Professor Rod McNaughton and Professor Howard Armitage, argue that experience is a critical aspect of entrepreneurial development because entrepreneurs learn by problem-solving, experimenting and making mistakes (Cope, 2005). Yet this mode of learning may be at odds with traditional instruction methods in universities, with the result that entrepreneurship teachers have to balance a reality-based focus with institutional demands for academic rigor (Solomon, Duffy and Tarabishy, 2002). Consequently, experiential learning is often an adjunct to classroom based pedagogy, or provided as an extra-curricular activity. The core of the Master of Business, Entrepreneurship and Technology (MBET) program is a practicum in which students develop a commercialisation plan for their business or intellectual property owned by a researcher or local business. The results of a recent survey of MBET alumni reveal that 69 graduates have led business start-ups in the past five years and 75% of alumni are associated with a new venture in some capacity, including management, product development, business development or consulting.

Implications include the importance of a 'knowing-doing' curriculum that simulates the commercialisation process and provides students with a nurturing environment in which they can test out new ideas, develop networks and gain self-confidence. This supports literature that identifies 'learning by doing' as an essential characteristic of entrepreneurs (e.g. Raffo et al., 2000; Bird, 2002; Solomon, Duffy and Tarabishy, 2002; Galloway and Kelly, 2009; Man and Yu, 2009).

The second article, entitled “Embedding International Entrepreneurship into Postgraduate Business Programmes”, is based on a study by the late Professor Jim Bell and his colleagues Dr Sharon Loane, Dr Cecilia Hegarty and Dr Trevor Morrow at the University of Ulster. The authors argue that the growing numbers

and importance of rapidly internationalising “born global” firms raises the need to improve the personal and professional capabilities of international entrepreneurs. This also suggests a need to imbed international entrepreneurship in postgraduate business programs. The authors compare the aims and impacts of a three-stage international entrepreneurship education program that is based on the Arpan model of international business education (c.f. Arpan, Folks & Kwok, 1993): firstly, raising awareness of international business issues; secondly, creating deeper knowledge and understanding of international entrepreneurship issues; and, finally, immersing students in a foreign market where they have to undertake research for Irish firms and are forced to develop and hone cross-cultural entrepreneurship, marketing and international business management skills. Post-course evaluations show that the immersion experiences, in particular, encourage both students and managers of the firms they work with to change their world views and, in the case of graduates, to look more seriously at starting their own ventures or working overseas.

The authors conclude that valuable international perspectives can be gained, even from relatively short periods of exposure. Insights that students gain from their interactions with firms and markets help modify their attitudes beliefs and values, provide them with greater cross-cultural knowledge and understanding and instill greater confidence to engage in an increasingly complex global business environment. This case demonstrates, then, that improvements in self-efficacy are indeed possible from immersion experiences, supporting other studies that show a positive link between experiential education and capability improvements (e.g. Charney and Libecap, 2002).

It is worth noting that Irish business managers who are interested in developing overseas markets are involved in both the second (desk and Web-based) and third (in-market) stages of the program and they, potential customers and distributors, as well as students, benefit from the co-creation of learning (Runquist et al., 2006; Stein, et al., 2008). In the business world there is growing emphasis on the co-creation of value between producers and consumers (e.g. Prahalad & Ramaswamy, 2004; Vargo & Lusch, 2004; Payne, Storbacka & Frow, 2008). It makes sense, then, that graduates who aspire to be future business owners and managers should also be comfortable with collaborative and cooperative learning pedagogies. That is because students often face ill-defined questions and must attempt to manage complex interpersonal and team dynamics that reflect real world situations. Students who have high levels of cultural sensitivity and well-developed communication and negotiation skills are also more likely to benefit from collaborative international business experiences.

The successful co-creation of education also requires students to take ownership of their learning. The third article in the special edition, “Using E-learning Technologies to Bridge the Gap between International Entrepreneurship Education and Practice”, is written by Dr Cecilia Hegarty, the late Professor Jim Bell, and Dr Sharon Loane. The authors discuss another program at the University

of Ulster which also involves intense collaboration. The authors argue that adopting innovative technology that allows for flexible learning is not only critical for educational institutions but is also an effective means for international firms to transfer knowledge. The authors assess the effectiveness of the Postgraduate Diploma or Masters in International Business by E-Learning. The course, which has a strong entrepreneurship flavour, attracts adults with extensive work experience who may be working for firms that are interested in developing international markets, as well as graduate students who are interested in starting their own ventures. The program was established as a result of growing demand from industry and students for more flexible learning opportunities in international business and entrepreneurship. Collaboration and networking is encouraged in a Web-based virtual learning environment where students are not usually required to be on campus, and where learning is self-directed and interactive (e.g. students, tutors and managers of participating firms all help to establish learning goals and negotiate outcomes). Evaluation of the program indicates that its success lies in its ability to facilitate greater access to learning opportunities for off campus students and the co-creation of international entrepreneurship knowledge by multiple stakeholders. Other areas investigated with the E-learners were issues relating to competency in ICT, managing learning, managing learning relationships and other commitments such as work or family. It is acknowledged that, from a student perspective, course satisfaction is influenced by intrinsic factors as well as extrinsic factors and controlling mechanisms.

The results of these two Irish studies support previous arguments that experiential and self-directed learning encourages the development of “threshold” competencies needed to start an international venture and also provides insights and strategies to help students develop the “success” competencies needed to grow innovative enterprises (Bird, 2002). The second Irish case study (Hegarty, et al.) also identifies internal and external influences on students’ entrepreneurial attitudes, intentions and capabilities. The results support previous studies that show the precursors of entrepreneurial intention are not static, and thus education can play an important role in encouraging entrepreneurial activity (Blackford, Sebora and Whitehill, 2009).

While the Irish and Canadian case studies discussed earlier provide important insights into how immersion, technology, collaboration and networking can enhance the effectiveness of experiential and self-directed learning, it may also be useful to reflect on how coaching and mentoring can be used to further improve effectiveness. The authors of this introductory article recently assessed three student entrepreneurship competitions in New Zealand. The key findings are discussed in the next section.

#### **4. Using Coaching to Leverage Program Effectiveness**

Coaching has long been recognised as an important way of improving individual and team sporting endeavours. Advice from ‘wise heads’ can also benefit the owners of younger businesses. As a result, many countries have developed mentoring programs for small and medium-sized enterprises in order to improve the professional development of owners and managers, as well enhancing the survival and performance levels of firms (Gray, 2006). Within the three functions of mentoring (psychosocial, vocational, and role modelling), a mentor can act as a business coach, friend, counsellor, and/or teacher (Ensher, Heun and Blanchard, 2003).

Coaching has also been introduced into entrepreneurship education curricula for student entrepreneurs, in extra-curricular programs (e.g. Li, Zhang and Matlay, 2003; Edwards and Muir, 2005) and as an adjunct to more formal courses in (e.g. Bolton, 1999). As with business mentors, student entrepreneurship project coaches can also provide vocational or career support to would-be entrepreneurs by offering advice, providing feedback and introducing networks (Ensher, Heun and Blanchard, 2003). Mentoring and coaching can either be facilitated through face to face contacts or, increasingly, be mediated through computer-mediated communications (Ensher, Heun and Blanchard, 2003).

It is worthwhile considering the extra value that coaching can add to experiential education programs. In New Zealand there are three entrepreneurship competitions and associated services offered to tertiary students interested in starting their own businesses: Audacious, which is available to university and polytechnic students in the southern city of Dunedin; Entré, which is open to students from the University of Canterbury; and Spark, which is aimed at both students and staff at the University of Auckland.

Data for a comparative study of these three programs was gained from content analysis of websites, annual reports and publicity materials, as well as interviews with key stakeholders to enable a triangulation of data sources. Information was tabulated and analysed inductively to draw out common themes. The lead author then encouraged stakeholders in the programs to reflect on the results and to resolve any differences in interpretation and conclusions. The findings are produced in Table 1.

Table 1: Comparison of New Zealand university youth entrepreneurship competitions

| Locations & Features    | <b>Audacious</b> –<br>Otago University &<br>Polytechnic, Dunedin                                                                                                                             | <b>Entré</b> –<br>University of<br>Canterbury,<br>Christchurch                                         | <b>Spark</b> –<br>University of Auckland,<br>Auckland                                                                                              |
|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| Ideas challenge         | \$10k in prizes for top 10 ideas (\$1k each)                                                                                                                                                 | \$10k in prizes for top 10 ideas (\$1k each)                                                           | \$10k in prizes for top 10 ideas (\$1k each)                                                                                                       |
| Business plan challenge | \$40k in cash and services for top plans (majority to 1 <sup>st</sup> & 2 <sup>nd</sup> place winners)                                                                                       | \$75k in cash and services for top plans (majority to 1 <sup>st</sup> & 2 <sup>nd</sup> place winners) | \$100k in cash and services for top plans (majority to 1 <sup>st</sup> & 2 <sup>nd</sup> place winners); Includes social entrepreneurship category |
| Coaching                | Free one-on-one coaching by Audacious coach;<br>Food for Thought business lunches;<br>Free incubation and advice for competition winners;<br>Informal mentoring by business owners/ managers | Free incubation and advice for competition winners;<br>Informal mentoring by business owners/ managers | Free incubation and advice for competition winners;<br>Informal mentoring by business owners/ managers                                             |
| Seminars                | Free business seminars offered by faculty, entrepreneurs and professional service providers                                                                                                  | Free business seminars offered by faculty, entrepreneurs and professional service providers            | Free business seminars offered by faculty, entrepreneurs and professional service providers                                                        |
| Management              | Managed by Audacious business coach, assisted by a City Council EDU manager, PR consultant and university administrators                                                                     | Managed by students, with assistance from university administrators                                    | Managed by students, with assistance from university administrators                                                                                |
| Eligibility             | Any full-time or part-time tertiary student in Dunedin                                                                                                                                       | Any full-time or part-time student at Canterbury University                                            | Any full-time or part-time student <i>or staff member</i> at Auckland University                                                                   |
| Financial support       | University, Polytechnic & City Council provide “core” resources and funding; businesses provide sponsorship for competitions                                                                 | University provides “core” resources and funding; businesses provide sponsorship for competitions      | University provides “core” resources and funding; businesses provide sponsorship for competitions                                                  |
| Other resources         | Audacious student lounge;<br>On-line educational resources                                                                                                                                   | On-line educational resources                                                                          | On-line educational resources                                                                                                                      |

The three youth entrepreneurship competitions and associated experiential learning programs share a similar structure. All have an ideas challenge to encourage innovative thinking, followed by a more structured business planning phase. The numbers of students participating in the Dunedin and Christchurch competitions are fairly similar (i.e. about 100 in the ideas challenge and 20 in the business plan challenge), with 50% more students participating in the Auckland challenges (roughly in line with the relatively larger size of the University of Auckland compared to Otago and Canterbury Universities). Intensive coaching, mentoring and incubation are all available for the major winners of the business planning challenges in all three cities, however only Otago students have one-on-one mentoring available from a dedicated coach. In the latter case, coaching is also available to students who do not take part in the ideas and/or planning challenges. All three programs provide free business seminars and on-line learning resources, as well as informal mentoring.

Only the Otago program organisers regularly survey participants and track the numbers who develop temporary enterprises (i.e. those businesses that operate while the owners are studying) or longer term enterprises (i.e. those that survive for at least one year after the owners graduate). The evidence from Auckland and Christchurch is more anecdotal. When the organisers and champions of the Spark and Entré programs were quizzed about the numbers of new enterprises developed, their perceptions were that significantly fewer student-owned ventures were created by Auckland and Canterbury University students each year compared to tertiary students in the city of Dunedin (about 100 temporary enterprises are established each year by Otago University and Polytechnic students, and about 20 each year survive for at least one year beyond graduation). When probed about possible reasons for this, the common opinion was that the one-on-one coaching service offered to Otago University and Polytechnic students appeared to provide an additional layer of entrepreneurial encouragement and advice that was not available to students in the other cities. It also helped to reduce some of the risks associated with starting new ventures.

## **5. Conclusions and Areas for Future Research**

Feedback from Audacious participants supports the views of other student competition and experiential learning program stakeholders that the availability of an on-campus coach adds value to other program features (e.g. competitions, informal mentoring, networking, and self-directed learning). A more integrated approach to experiential learning and new venture creation appears to help students to overcome barriers and inhibitions identified in previous studies, including limited business knowledge, inadequate preparation and/or an unwillingness to take risks to achieve entrepreneurial aspirations and dreams (Selcuk and Turker, 2009).

The results of the New Zealand, Canadian and Irish case studies all support arguments for the important role that education plays in encouraging youth to both consider and pursue entrepreneurial aspirations (Selcuk and Turker, 2009). The findings also resonate with the broader education literature on how experiential projects can encourage students to achieve deeper learning outcomes (Kember, 1997; Ramsden, 2003). Experiential pedagogies achieve this through the creation of interesting, involving and memorable experiences that facilitate more effective and durable learning (Elam and Spotts, 2004).

The following three articles in this special edition of the *International Review of Entrepreneurship* focus specifically on the particular roles that immersion, collaboration and network development, and technology-based distance learning play in enhancing learning experiences. As shown earlier, intensive coaching may also help to leverage program inputs to achieve even greater experiential education outcomes.

All three main articles, plus the reflective study in this Introduction, have addressed calls for debate and research into the effectiveness of entrepreneurship education (Alberti, Sciascia and Poli, 2005). Although these studies provide important insights, future researchers could focus more on the 'value added' indicators and outcomes detailed by Storey (2002). In particular, this means comparing the attitudes and behaviours of students who do and do not take part in experiential entrepreneurship education programs (allowing for self-selection and administrative selection biases, of course), pre- and post-participation measures, and longitudinal studies (van der Kuip and Verheul, 2004). Because learning aims and outcomes are highly complex and contextual (Alberti, Sciascia and Poli, 2005), this also suggests a need for further cultural and cross-cultural studies.

### **On a sad note**

It is with great sadness that we acknowledge the passing of Jim Bell, who was Professor of International Entrepreneurship at the Magee Campus of the University of Ulster, Derry, Northern Ireland. Jim was a great inspiration to marketing and entrepreneurship researchers, PhD students and educators. He developed a number of teaching and research innovations that involved partnerships between industry, faculty and graduate students that have since been adapted by colleagues at other institutions. We pass on our condolences to his family, friends and colleagues. He will be sorely missed.

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