Edited by
Denis Hyams-Ssekasi · Elizabeth F. Caldwell

Experiential Learning for Entrepreneurship

Theoretical and Practical Perspectives on Enterprise Education

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Foreword

Can entrepreneurship really be taught? This question has been put to me throughout my career and, for the first 20 years, my instinctive answer would have been 'yes'—after all that is what I did as a professor in a business school. However, I then decided to launch my own business and soon discovered that nothing can really prepare you for the hard work and stress caused by the roller-coaster of emotional ups and downs—whether your business is successful or not. I knew I was not a risk-taker, but I had not anticipated the emotional strain this puts you under when you depend for your livelihood on the work coming in for you and your team. Retreating back into academia, I have had the last 20 years to reflect on my experiences and write about them.

Let us start by asking whether education can influence your entrepreneurial tendency. Some entrepreneurs get 'pushed' into it by external circumstances, while others are 'pulled' by its attractions. Psychologists would say that there are five character traits or personality dimensions that measure this: a high need for achievement; a high internal locus of control; a need for independence; an acceptance of uncertainty and willingness to take measured risks; and creativity, innovation and opportunism (Burns 2018). These traits are influenced by who you are as well as your life experiences—entrepreneurs are born *and* made—and some traits, like the first three, are hard to influence through education. But the last two can be influenced.

There are techniques for mitigating and managing risk and the whole process of developing a business model and plan is designed to facilitate this and, in doing so, create more confidence in an uncertain future. I will never forget the MBA student who had a start-up dream and went around clutching the latest version of his business plan, almost like a comfort blanket—he went on to set up an airline. It is about giving entrepreneurs thinking tools to address uncertain, changing circumstances—frameworks to help develop strategies that address the different challenges they will face. However, entrepreneurship is a contact sport and the contact is with customers and competitors, so whilst entrepreneurs, like any athlete, might benefit from coaching—learning from the success and failure of others—just teaching strategy and tactics is not enough. Ultimately you have to try them out in your business, which is the basis of the 'lean start-up' approach of launching a product/service in a minimum viable state and learning from the feedback of customers (Reis 2011). This is pure experiential learning and it is why mentoring during start-up is such a powerful educational tool. I wish I had a pound for every excellent business plan produced by an MBA student with absolutely no intention of starting their own business. As I discovered with my business, knowing what to do is far easier than actually doing it.

Creativity—in particular the ability to spot innovative business opportunities—is probably the most important entrepreneurial characteristic. It also can be influenced through education and training. For example, a six-year study of more than 3000 US CEOs, contrasting 25 well-known entrepreneurs (such as Steve Jobs of Apple, Jeff Bezos of Amazon, Pierre Omidyar of eBay, Peter Thiel of PayPal, Niklas Zennström of Skype and Michael Dell) with other CEOs who had no track record for innovation, highlighted five discovery skills: networking, observing, questioning, associating, experimenting (Dyer et al. 2009). These skills can all be taught but also need to be practised. One skill in particular—'associating'—can be difficult to master. Associating a solution to a problem in one context to another unsolved problem so as to create an innovative product/service that customers are willing to pay for requires a truly creative leap, for example, when Henry Ford

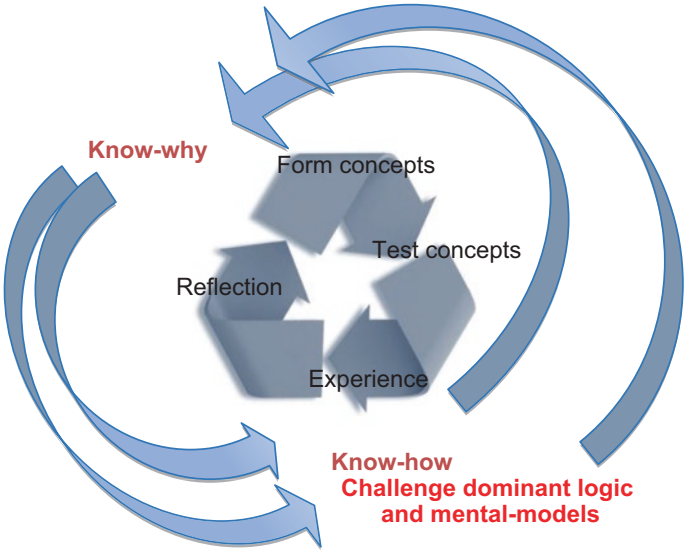

Fig. 1 The wheel of learning. (Adapted from Burns 2016; Kim 1993)

'associated' the production line he 'observed' in a slaughterhouse with his vision of building an affordable car for the masses. Another skill—'questioning'—goes to the heart of innovation in products and services and their marketing. It is also at the heart of effective experiential learning.

Experiential learning is probably the most powerful form of learning. We learn most things in life—eating, crawling, walking and communicating—through trial and error: action, consequence, reflection and then remedial action. Building on Kolb's experiential learning cycle (1984), Kim (1993) suggested that effective learning can be considered to be a revolving wheel—the wheel of learning (Fig. 1). During the first half of the cycle, you form and then test existing concepts and observe what happens through experience—learning 'know-how'. In the second half of the cycle, you are reflecting on the observations and forming new concepts—learning 'know-why'—often called 'double-loop learning' (Argyris and Schön 1978). It is this second sort of learning that is of particular value to entrepreneurs because it is at this point that root causes of problems

are diagnosed and systematic solutions put in place. This is when you question your 'dominant logic' or 'mental models'—the assumptions and theories about the world upon which your learning is based. Dominant logic is the mind-set with which an organisation or industry collectively sees itself and the world it inhabits—its position with customers, competitors and other stakeholders. It filters the information, subconsciously interpreting environmental data in a certain way and influences behaviour. If you start asking 'why?' and 'why not?' and questioning industry's dominant logic, you start to reframe your thinking and become more creative and innovative, able to spot opportunities for new products or markets that others have failed to see.

So, can entrepreneurship be taught? I believe entrepreneurs are, in part, born and, in part, made—shaped through their life experiences, including education. Whilst there is no blueprint for success, we can help them 'play the odds' by showing which strategies have the best chances of success, giving them the confidence to address the unexpected challenges they will face. But that education must include 'doing'—experimenting, testing concepts and learning from experience. Experiential learning is not just about developing knowledge and skills. It is about giving entrepreneurs thinking tools and frameworks to address changing circumstances—not rigid rules to adhere to—allowing them to try them out in different situations. Not only does it facilitate learning and better embed it in the individual, it improves judgement and individual confidence. By incorporating it into the teaching of entrepreneurship, educators can improve entrepreneurs' creativity and chances of success. At the heart of experiential learning lie those all important questions: 'why?' and 'why not?'

Experiential learning is a powerful tool and this book is an important part of the enterprise educators' toolkit. It not only explains the theoretical underpinning for experiential learning but also outlines the many ways it can be used in the teaching, learning and assessment of entrepreneurship courses. It is particularly useful in showing how it can be used out of the classroom and its pivotal role in building a learning organisation, where the constant turning of the wheel of learning, sharing knowledge of know-how and know-why, embeds double-loop learning within it and generates organisational learning. It demonstrates how, both for

the individual and the larger organisation, experiential learning is at the core of entrepreneurship, creating a self-sustaining entrepreneurial mindset that constantly learns from the experiences of the market place.

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References

Argyris, C., & Schön, D. (1978). *Organizational learning: A theory of action perspective*. Reading: Addison Wesley.

Burns, P. (2016). *Entrepreneurship and small business: Start-up, growth and maturity* (4th ed.). London: Palgrave.

Burns, P. (2018). *New venture creation: A framework for entrepreneurial start-ups*. London: Palgrave.

Dyer, J. H., Gregersen, H. D., & Christensen, C. M. (2009, December). The innovator's DNA. *Harvard Business Review, 87*(12), 60–67.

Kim, D. H. (1993). The link between individual and organizational learning. *Sloan Management Review, 35*(Fall), 37–50.

Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development* (Vol. 1). Englewood Cliffs: Prentice-Hall.

Reis, E. (2011). *The lean start-up: How today's entrepreneurs use continuous innovation to create radically successful businesses*. New York: Crown Publishing.

Preface

In their study Fayolle et al. (2006) define entrepreneurship education as a "process of education for entrepreneurial attitudes and skills, which involves developing certain personal qualities" (p. 702). The European Commission (2003) associates entrepreneurship education with learning opportunities that enables one to be creative and to convert an idea into reality. Similarly, the QAA (2012) views entrepreneurship education as a means of developing an entrepreneurial mind-set and techniques in terms of becoming self-employed and/or starting one's own business. Advocates for entrepreneurship education note that it can increase students' interest in entrepreneurship and influence aspirations to become entrepreneurs (Dickson et al. 2008; Fayolle et al. 2006; Stokes et al. 2010). According to Csorba (2014), entrepreneurship education helps students who are keen to become entrepreneurs to acquire hands-on experience whilst studying, increase their personal networks, enhance their academic success and boost self-confidence levels. Vestergaard et al. (2012) found that alumni students who undertook entrepreneurship education and training not only started their own businesses but earned a higher wage as compared to those who did not.

The delivery of entrepreneurship education in higher education establishments is not new and Katz (2003) points out that at least 120,000 students took part in this education 50 years ago. However, since then, interest in increasing the supply of future entrepreneurs has grown and in

fact has been argued by Burns (2016, p. 7) to be "probably one of the major challenges facing business schools in the 21st century". Consensus has been reached by many educators that it is not enough to teach students about entrepreneurship but that students must experience entrepreneurship through carrying out aspects of developing and running a business in order to develop their entrepreneurial skills (see Cope 2005; Politis 2005).

This idea of learning entrepreneurship by actually starting and running a business aligns with the concept of experiential learning, also known as 'learning by doing', which posits that an infusion of direct experiences is necessary for learning to take place (Kolb and Kolb 2005). The goal of successful entrepreneurship education is to learn the fundamental concepts of business as well as to develop the ability to apply them flexibly in multiple situations. Indeed, Kolb's (1984) experiential learning cycle provides one mechanism through which to do this. The cycle involves learners reflecting on experiences, extracting and conceptualising the learning from that experience, followed by experimenting, testing and honing the new insights through further experiences.

These principles of experiential learning have been adopted widely in a variety of disciplines in higher education where graduates must acquire practical competence as well as theoretical knowledge during their studies, such as in nursing, counselling and teacher education (Clark et al. 2010). Experiential learning is also widely used for training programmes outside of formal educational settings, for example, in the retail and service sectors. Such programmes, both inside and outside of education, often involve simulating experiences through games and role-play or supervising trainees on work placements. However in recent years, educators have set themselves the challenge of trying to provide students with the experience of starting a live business venture, in the real world. In order to do this, many of the most innovative educators have utilised experiential learning theory in designing their entrepreneurship programmes. These educational experiences all involve students 'doing' aspects of business and range from developing business plans to full venture creation programmes where students launch and run a live business. Entrepreneurship education, therefore, not only incorporates some of the most innovative and immersive educational experiences but also serves as an opportunity to extend and develop our understanding of experiential

learning, by incorporating into it concepts of challenge-led and emotion-based learning.

It is this shift to designing entrepreneurship programmes which incorporate experiential learning that is the key focus of this book. In particular, the book addresses the following key questions: How can practical business experiences be incorporated into programmes and courses? How should experiential learning be assessed? What role can technology and virtual learning experiences play in entrepreneurship education? How do we conceptualise, capture and develop the experiential learning that occurs outside of formal educational institutions, in the 'real world' of business?

We have divided the book into two parts, which examine in turn approaches to experiential learning for entrepreneurship from both within educational establishments and organisations outside of education. In Part I, the chapters cover key aspects and experiences of designing learning opportunities for entrepreneurship within education. In Chap. 1, Ramsgaard gives an overview of theoretical perspectives on experiential learning in entrepreneurship. In Chap. 2, Lackéus and Williams Middleton review their extensive experience designing and conducting assessment in programmes that utilise experiential learning. Yasin and Hafeez (Chap. 3) then outline the use of technology-based simulation gaming as potent tool used to enhance experiential learning in entrepreneurship studies. Following these chapters are four practical case studies examining different aspects of embedding and running entrepreneurial activities in educational institutions. The first case study concerns embedding a live business experience into an existing entrepreneurship course structure (Hyams-Ssekasi and Caldwell, Chap. 4). This is followed by two case studies that examine different aspects of running challengeled entrepreneurial activities: raising aspirations of schoolchildren (Scott, Mackie, Smith and Crooks, Chap. 5) and fostering interdisciplinary working among university students (Power, Chap. 6). The final chapter in this part explores the interaction between entrepreneurial activities and the institutional context (Scuotto and Murray, Chap. 7).

Part II consists of six chapters which examine experiential learning in entrepreneurial environments around the world. Estrada-Robles (Chap. 8) offers a detailed study of experiential learning in entrepreneurial families in Mexico and shows how the entrepreneurial family becomes a

learning space that allows an exploration and exploitation of business opportunities. In Chap. 9, Bamber and Gransden discuss how reflection, a key component of the experiential cycle, can be incorporated into staff meetings to enhance service in premium dining restaurants. Calisto (Chap. 10) discusses the way 'intrapreneurs', or entrepreneurial individuals who work in large organisations, recognise and act on opportunities. In Chap. 11, Bamber and Harding present a matrix for taking a planned approach to developing organisational values through experiential learning workshops. The final two chapters in this part examine schemes aimed at supporting new entrepreneurs. Dobson, Maas, Jones and Lockyer explore the role of an incubator in developing business ideas in Ghana (Chap. 12). Following this, the work of Penney, Bibikas, Vorley and Wapshott (Chap. 13) reflects on a pan-European project to develop young entrepreneurs in the information and communication technology sector.

Finally, we owe thanks to many people who have enabled this book to come to fruition. Firstly we would like to thank the contributors for taking the time to write their chapters. We are also grateful to Dr Jamie Halsall who has been an invaluable source of inspiration and gave us the impetus and encouragement to begin on the journey of compiling this volume. We would also like to thank Liz Barlow and Lucy Kidwell at Palgrave for their support at every stage of the book and R.ShruthiKrishna and the production team at Springer for their dedicated work during the production process.

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References

Burns, P. (2016). *Entrepreneurship and small business: Start-up, growth and maturity* (4th ed.). London: Palgrave Macmillan.

Clark, R. W., Threeton, M. D., & Ewing, J. C. (2010). The potential of experiential learning models and practices in career and technical education and career and technical teacher education. *Journal of Career and Technical Education, 25*(2), 1–21.

Cope, J. P. (2005). Towards a dynamic learning perspective of entrepreneurship. *Entrepreneurship Theory and Practice, 29*(4), 373–399.

Csorba, E. (2014, October 14). Why become a student entrepreneur? *The Telegraph*. Source: http://www.telegraph.co.uk/education/universityeducation/student-life/11161134/Why-become-a-student-entrepreneur.html. Accessed 27 Feb 2018.

Dickson, P. H., Solomon, G. T., & Weaver, K. M. (2008). Entrepreneurial selection and success: Does education matter? *Journal of Small Business and Enterprise Development, 15*(2), 239–258.

European Commission. (2003). *Green paper on entrepreneurship in Europe*. Source: http://ec.europa.eu/enterprise/entrepreneurship/green_paper/. Accessed 20 Mar 2017.

Fayolle, A., Gailly, B. T., & Lassas-Clerc, N. (2006). Assessing the impact of entrepreneurship education programmes: A new methodology. *Journal of European Industrial Training, 30*(8/9), 701–720.

Katz, J. A. (2003). The chronology and intellectual trajectory of American entrepreneurship education: 1876–1999. *Journal of Business Venturing, 18*(2), 283.

Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development.* Englewood Cliffs: Prentice-Hall.

Kolb, A. Y., & Kolb, D. A. (2005). Learning styles and learning spaces: Enhancing experiential learning in higher education. *Academy of Management Learning & Education, 4*(2), 193–212.

Politis, D. (2005). The process of entrepreneurial learning: A conceptual framework. *Journal of Business Venturing, 29*(4), 399–424.

QAA. (2012). *Enterprise and entrepreneurship education: Guidance for UK higher education providers*. The Quality Assurance Agency for Higher Education. Source: http://www.qaa.ac.uk/en/Publications/Documents/enterprise-entrepreneurship-guidance.pdf. Accessed 17 July 2017.

Stokes, D., Wilson, N., & Mador, M. (2010). *Entrepreneurship*. London: South-Western Cengage Learning.

Vestergaard, L., Moberg, K., & Jorgensen, C. (2012). *Impact of entrepreneurship education in Denmark – 2011*. The Danish Foundation for Entrepreneurship – Young Enterprise, Denmark.

Contents

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Maria de Lurdes Calisto is an assistant professor at Estoril Higher Institute for Tourism and Hotel Studies (Portugal) where she also coordinates the Centre for Entrepreneurship and Business Development and leads a research group on Entrepreneurship in Tourism. She holds a PhD in Management awarded by the University of Évora. She is a research collaborator at the Centre for Advanced Studies in Management and Economics—University of Évora. The current research interests include innovation in services, strategic entrepreneurship and intrapreneurship, human capital and strategic human resources management. She has published papers in international journals as well as book chapters.

Judy Crooks is a research assistant who is studying within the School of Business and Enterprise at the University of the West of Scotland. She has extensive experience of working within the health and third sector services within managerial and public engagement roles. She has wide research interests which include human resource management, enterprise and entrepreneurial learning and economic policy. The key interest is how these interconnect together to deliver national policy in terms of becoming key drivers within the culture of public and third sector organisations.

Stephen Dobson is a senior research fellow in the International Centre for Transformational Entrepreneurship (ICTE), Coventry University, and the book reviews editor for the *International Journal of Entrepreneurship and Innovation*. Dobson is also the Programme Manager of the African Institute for Transformational Entrepreneurship (AITE) which is an entrepreneurial laboratory focusing on supporting sustainable socio-economic development through transformational entrepreneurial knowledge transfer, research, university enterprise zones and policy formulation. Between 2011 and 2015, he was the UK representative on the management committee for the European Academy of Management (EURAM).

Mariana Estrada-Robles is Lecturer in Enterprise in the University of Leeds, UK, and member of the Centre for Enterprise and Entrepreneurship Studies. Her research focuses primarily on the field of family entrepreneurship specialising

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Clay Gransden is Lecturer in Marketing at Liverpool Hope University and gained his doctorate in 2008 in the area of customer delight in the hospitality sector. In addition to his academic expertise, he also has over ten years' experience working in the Hospitality and Marketing sector. His research on consumer delight was awarded 'best in track' at the 'Fourth International Conference on Hospitality and Tourism Management' held in Bangkok. Gransden is engaged in several research and consultancy projects, providing guidance and expertise in hospitality marketing and social media at local, regional and international levels.

Khalid Hafeez is an experienced academic with over 25 years of teaching, research, educational management and technology transfer experience across disciplines in the UK and TNE. Before his most recent appointment as a professor and head of Business and Management Division at the Dundee Business School at Abertay University, Dundee, he served as the founding Dean of the Claude Littner Business School at the University of West London. Earlier to this, Hafeez was a tenure-track professor and head of the group at the York Management School, University of York, UK.

Steve Harding has over 22 years of experience working within the public and voluntary and community sectors. Throughout this time, he has been very much focused in delivering organisational learning and development initiatives. Both internally for the organisations he has worked within and externally as part of role or on a consultancy basis. Harding completed his Master of Business Administration at Liverpool University and his Doctorate of Philosophy in Business Management at Liverpool Hope University; his thesis focused on values alignment in supporting organisational development.

Denis Hyams-Ssekasi is Lecturer in Business Management and Research Coordinator at the University of Bolton. He is a senior fellow of the Higher Education Academy and is a member of the Institute for Small Business and Entrepreneurship. He has delivered courses on Business Enterprise to all levels and has also helped students start their own businesses. He has also designed and run several mentoring programmes where local business leaders act as mentors for undergraduate students. Hyams-Ssekasi has also offered consultancy to start-up businesses, especially in developing countries.

Paul Jones is Professor of Entrepreneurship at Coventry University. His current focus of research is entrepreneurial activity within Africa. Jones has published his work in leading international journals such as *International Small Business Journal*, *Environment and Planning C*, *Omega* and *Journal of Business Research*. Jones is the editor-in-chief for the *International Journal of Entrepreneurial Behaviour and Research* and associate editor for the *International Journal of Management Education*. Jones has previously successfully co-edited five journal special editions including the *Journal of Small Business and Enterprise Development* and *Strategic Change*.

Martin Lackéus is a researcher in entrepreneurial education at the division of Entrepreneurship and Strategy at Chalmers University of Technology in Sweden. He is also a teacher at Chalmers School of Entrepreneurship. Lackéus' research focuses on how individuals develop entrepreneurial competencies in education through value creation processes and how such processes can be assessed. In 2016 Lackéus defended his PhD thesis on value creation as a new educational philosophy. He also works part-time as an entrepreneur with two IT companies he co-founded—Vehco and Me Analytics. Me Analytics develops the research tool LoopMe described in Chap. 2 of this book.

Joan Lockyer is the Assistant Director of the International Centre for Transformational Entrepreneurship (ICTE) at Coventry University. She has worked in higher education for 15 years, prior to which she worked in industry (in product development, testing and certification) for over 10 years and consultancy for 12 years. Lockyer's teaching experience covers the full spectrum of accredited and non-accredited programmes (undergraduate, postgraduate to doctoral level, professional development and vocational). She is experienced in enterprise education, leading on the development of the Masters in Enterprise and Entrepreneurship Education and co-delivering the International Enterprise Educators Programme (IEEP).

Gideon Maas is the Director of the International Centre for Transformational Entrepreneurship at Coventry University. Maas has broad international business and academic experiences in various countries. Within the academic environment, Maas has created various entrepreneurship centres at different universities over the past years, developed and implemented undergraduate and postgraduate modules and programmes focusing specifically on enterprise and entrepreneurship. Recently Maas has created the African Institute for Transformational Entrepreneurship to assist African countries in supporting sustainable socioeconomic growth. Maas' research focus and experiences are in entrepreneurship,

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Robert Smith is Professor of Enterprise and Innovation at the University of the West of Scotland, Dumfries Campus. He has eclectic research interests which include entrepreneurial learning, entrepreneurial identity, entrepreneurial narrative, gender and entrepreneurship and rural entrepreneurship. He has published over 150 peer-reviewed journal articles and book chapters to date.

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Part I

Experiential Learning in Education

1

Experiential Learning Philosophies of Enterprise and Entrepreneurship Education

Michael Breum Ramsgaard

Introduction

How can educators in entrepreneurship education apply an experiential learning perspective in their curriculum design and course planning? Hannon (2005) suggested using the notions on teaching *about*, *for*, and *through* when developing and researching entrepreneurship education. However, other notions and overall understandings may provide us with new perspectives that can advance the field by taking into consideration other elements—for example, *in*, *after*, *under*, *over*, *beside*, *during*, and *meanwhile* (Naia et al. 2015; Neergaard et al. 2016; Ramsgaard and Christensen 2016) or *what*, *when*, *where*, and *how* (Pittaway and Cope 2007a; Rasmussen and Sørheim 2006).

The current conceptual chapter proposes that research in entrepreneurship education has developed a narrow perspective on learning if its focus relies only on *about*, *for*, and *through*. The chapter explores other points of view and furthermore discusses and explores central topics

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within experiential learning using the lenses of both educators and students. Research on entrepreneurship education and especially experiential learning has long pursued questions of how to apply the pedagogies and didactics of experiential learning into curriculum development and course planning (Krueger 2007; Pittaway and Cope 2007b), but the educator's own ability to differentiate and experiment with known learning approaches has been a highly overlooked topic.

The point of departure for the chapter will be Hannon's work on philosophies of entrepreneurship education (Hannon 2005, 2006) combined with Jason Cope's dynamic perspective on experiential learning (Cope 2003, 2005; Cope and Watts 2000; Pittaway and Cope 2007a; Pittaway and Thorpe 2012) and will further discuss in relation to lenses of transformative learning, entrepreneurial action, entrepreneurial reflection, and entrepreneurial identity in order to leverage an understanding of experiential learning in entrepreneurship education on a conceptual basis. Finally, the chapter will suggest a dynamic model that educators can use to design experiential learning activities that include an interplay of various models and understandings.

The chapter proposes that a narrow perspective on learning has been created in research in entrepreneurship education that focuses only on teaching *about*, *for*, and *through*. The purpose of this chapter is to present and further develop experiential learning philosophies of enterprise and entrepreneurship education.

Conceptual Background

Within theories on entrepreneurial learning, evidence suggests that experiential learning methods and approaches can enhance learning outcomes for students in higher education (Middleton et al. 2014; Neergaard et al. 2016). Hannon's contribution to entrepreneurship education with the concept of *about*, *for*, and *through* entrepreneurship education has received widespread recognition (Bridge 2017). However, current debates in learning theory address developments in the conceptualization of learning processes from both educators and students (Moon 2004), and recent research on Hannon's taxonomy suggests that the concept requires an update (Hoppe et al. 2017).

Review of Hannon's Contributions

Paul D. Hannon's paper *'Philosophies of enterprise and entrepreneurship education and challenges for higher education in the UK'* (2005) proposed important questions to be considered in entrepreneurship education: (1) Is entrepreneurship education management or business related? (2) Is entrepreneurship education a part of a learner's life capabilities? (3) Is entrepreneurship education a process of identifying organizational opportunity? Hannon states that an 'underpinning philosophy of an educational programme will partially determine the outcomes of the educational process and influence the educational experience' (Hannon 2005). He further elaborates that if concepts and approaches in entrepreneurship education are blurred and have mixed meanings it can lead to contrasting and even conflicting beliefs for both students and educators. In his conceptual paper, he includes philosophies of the more general frameworks for adult education. In his efforts to dissect the categorizations of different approaches in entrepreneurship education, he takes a stance on a somewhat narrow perspective on the commonly applied conceptualization of *about*, *for*, and *through*. Being published in 2005, it could be relevant to look at the developments within learning philosophies during the next 15 years in order to fulfillingly include approaches to bring into focus (Naia et al. 2015). However, Hannon has luckily published other important works on these matters. In another paper from 2005, he has expanded the views to focus on determining curricula content (Hartshorn and Hannon 2005). A key finding is that the specific course described ensured personal learning and prepared for an unsure future in entrepreneurship. Hannon does not relate this to underlying philosophies, but a viewpoint could be that the *about*, *for*, *and through* notions were not sufficient and that other relevant parameters such as legitimization, mentoring, and identity would be relevant parameters. One other Hannon paper stands out as bringing important aspects into these discussions, namely, his 2006 paper (Hannon 2006), where he touches upon the complexities of a number of interrelated aspects that could be relevant to consider when designing curricula in entrepreneurship education:

- Embedding across and within different subjects
- Location and ownership

- Purpose and outcomes
- Educators' roles and approaches
- Benefits
- Coherence and cohesion
- Quality (Hannon 2006)

All of these aspects can be considered as contributions to the ongoing discussions about underlying philosophies. At some points, these aspects question the above described categorizations about entrepreneurship education being management or business related, part of a learner's life capabilities, or a process of identifying organizational opportunity. The aspects can be seen as overlapping and therefore not fit particularly well into the three categorizations above.

A Dynamic Perspective on Experiential Learning

Jason Cope presented in his conceptual article *'Toward a Dynamic Learning Perspective of Entrepreneurship'* (2005) a learning perspective of entrepreneurship that built upon existing and widely accepted theoretical approaches to understanding entrepreneurial activity—what Pittaway calls inquiry-based learning (Pittaway et al. 2009). Pittaway and Cope (2007b) illustrated that it is possible to simulate some aspects of entrepreneurial learning, such as emotional exposure and situated learning, but not others.

Much research on learning processes influencing entrepreneurship education has been developed with a focus on entrepreneurs (Williams Middleton 2013). However, the connections between educational activities and later entrepreneurial careers are sparsely investigated, and the learning processes might not be easily transferred (Cope and Watts 2000) because of the extremely complex interplay of what Cope and Watts (2000) call 'critical incidents', incidents where entrepreneurs face emotional-laden or traumatic events in the pursuit of an entrepreneurial career. In experiential learning processes, the pedagogical activities seldom consist of traumatic events because of ethical implications. However, the dynamic learning perspective and experiential learning processes are widely used and accepted when educators design and plan courses and curricula (Honig 2004; Lackéus et al. 2016; Li et al. 2007).

Learning Outcomes in Entrepreneurship Education

Learning outcomes in entrepreneurship education have gained much attention (Gibb 2002, 2012; Politis 2005). Existing research shows no clear direction in the pursuit of clear understandings of approaches and broadly adopted understandings, because many elements and pedagogical activities influence curriculum design and course planning (Cope and Watts 2000). However, Hytti and O'Gorman (2004) found that the learning outcomes of entrepreneurship education represent three different types of overall goals: (a) increasing knowledge about entrepreneurship, (b) developing entrepreneurial skills, and (c) starting a new business. These learning outcomes are found to be too broadly defined, but the connection to Hannon's concept is clear. Hoppe et al. (2017) argued that the concept of *for/in/through/about* leads to highly different pedagogical approaches for entrepreneurship education depending on their purpose, and their suggested inclusion of the notion of *in* subsequently offers new opportunities to enhance complementary student learning in higher education. The pedagogical approach to learning outcomes reinforces the importance of the educator, and other important research has investigated which specific didactical elements and activities work in an entrepreneurship education classroom (Lackéus 2015; Segal et al. 2007), providing an overview of terms and definitions currently used in entrepreneurial education.

When addressing experiential learning philosophies of enterprise and entrepreneurship education, the foundational works on the topic need to be considered in relation to the classic experiential learning literature. Here, David A. Kolb's seminal work on the experiential learning cycle provides an extended view on learning outcomes. Kolb published the groundbreaking book *Experiential Learning: Experience as the Source of Learning and Development* in 1984. This book explained that a person could pursue learning through discovery and experience (Kolb 1984). Kolb's theory is called 'experiential' because of its academic origins in the work of Lewin, Piaget, Dewey, Freire, and others. Effective learning is seen when a person progresses through all the four stages of the learning cycle, namely, (a) concrete experience, (b) reflective observation, (c) abstract conceptualiza-

tion, and (d) active experimentation (Kolb 1984; Kolb and Kolb 2005). Kolb's model of experiential learning has been the driving agenda-setter in experiential learning philosophies, even though it also has been criticized for its lack of focus on practical application in an entrepreneurship education setting, in addition to the difficulty of empirically validating the theory (Lackéus 2014).

Transformative Learning Processes in Higher Education

Transformative learning theories have emphasized the responsibility of the individual learner to engage and reflect on the learning process (Illeris 2014). A significant responsibility has also been put on the educator to design learning processes that create room for transformative learning. The adult-learning theory proposed by Jack Mezirow (1997) further highlights the importance of four processes of learning: (a) elaborating on an existing point of view, (b) creation of new meanings/establishment a new point of view, (c) transformation of a point of view, and (d) transformation of the existential habits of mind. Mezirow (1997) described the importance of critical reflections on assumptions that we base on 'our interpretations, beliefs, and habits of mind or point of view' (Mezirow 1997), emphasizing the important role of reflection when dealing with learning processes. He explained, 'Transformative learning involves a particular function of reflection: reassessing the presuppositions on which our beliefs are based and acting on insights derived from the transformed meaning perspective that results from such reassessments' (Mezirow 1990, p. 18).

Learning theories in higher education differ greatly in relation to the contexts in which learning processes are situated (Welter 2011). Within business schools, there is a more traditional and historical agenda for entrepreneurship education, whereas institutions of applied science hold no long or widely evidenced approaches (Mwasalwiba 2010). Here, a closer look at reflections and entrepreneurial identity seems relevant to develop a thorough understanding of the state of the field, so this chapter will elaborate these developments and connect the terms of transformative learning and entrepreneurial leadership (Kempster and Cope 2010).

Entrepreneurial Identity: Educator and Student Perspectives

Within entrepreneurship education, studies on identity have developed evidence and applicable models for how this concept could be integrated into higher education. Recently, there has been considerable interest amongst entrepreneurship scholars in identity construction (Nielsen and Lassen 2012; Ollila and Williams Middleton 2013). Some researchers view participants in entrepreneurship programmes as active agents in the construction of entrepreneurial identity through engaging in the learning processes, but this is not necessarily the position provided by their entrepreneurship programmes or educational context (Hytti and Heinonen 2013).

Hannon (2005) also highlighted a focus on entrepreneurial identity. There is very little research on entrepreneurial identity of educators, but looking at students the evidence is much clearer (Donnellon et al. 2014; Williams Middleton 2013). It remains to be researched whether the entrepreneurial identity of the educator is an important factor in whether learning processes and activities lead to enhanced entrepreneurial activity.

Action-Based Experiential Learning

The topics described above suggest that there is a link in experiential learning philosophies between learning general topics, reflectional learning, and entrepreneurial identity, leading to a conception and understanding of action-based perspectives in entrepreneurship education. Austin and Hjorth (2012) suggested a distinction between action-based and experience-based teaching and learning; in addition, variation or didactical differentiation seems to be important (Austin and Hjorth 2012; Ramsgaard and Christensen 2016). In this light, Hannon's (2005) notions of *about*, *for*, and *through* do not seem to offer an adequate framework for understanding experiential learning philosophies.

About, *for*, and *through* relate to another view on learning that has developed much since 2005. The current focus on learning through experience, engagement in transformative learning processes, and through action-based activities resonates with the widely used concepts of effectuation

(Sarasvathy 2001, 2008), lean start-up, and business model generation (Blank 2013; Ries 2011). The underlying philosophy stems from John Dewey's theory of reflective thought and action and learning by doing (Foss et al. 2013; Pepin 2012; Schön 1992). Dewey provided learning theory with a highlighting of the relationship and connection between experience and reflection by adding practical, material life activity and non-reflective experience based on habits as important forms of experience (Miettinen 2000). In comparing the work of Dewey with Kolb's experiential learning cycle theory, Miettinen highlights that 'In contrast to Kolb's model in Dewey' s conception every phase is necessarily interconnected. It is the problems and dynamics of life activity that are the common denominator in both habitual and reflective experience for Dewey, and which made him a philosophical pragmatist' (Miettinen 2000).

Debates about which action-related activities provide learning opportunity in experiential learning settings are much in opposition. Internships in terms of short-term work-related periods in organizations and institutions have been found evident in minimizing theory-practice gaps and therefore giving opportunity for learning (Piihl et al. 2014; Ramsgaard and Østergaard 2017; Varghese et al. 2012). Carrier (2007) also suggested games and simulations as elements to enhance learning (Carrier 2007). Also solution camps have been found relevant to consider (Bager 2011) since camps can complement the entrepreneurial activities and create a framework for intense cross-disciplinary creativity and innovation training. A comprehensive understanding of relevant and related pedagogical activities remains to be investigated within entrepreneurship education.

Discussion

What does an educator rely on when engaging in entrepreneurship education? How can he/she navigate in the diverse, contrasting, and manifold landscapes of approaches, theories, methods, and philosophies? Research within entrepreneurship education has so far failed to provide meaningful directions for the educator about the didactics of designing an entrepreneurial classroom or curricula (Bridge 2017; Fiet 2001; Blenker et al. 2012). What if the endeavour is not possible at all? In many

other aspects of life and learning, there are no specific and universal models or approaches that fit every situation and context, for example, in love, politics, raising a child, or sports (Lindgren and Packendorff 2009; Welter 2011). Choosing a narrow perspective on learning in a field may limit an educator's possibilities (Neergaard et al. 2016). If educators themselves embrace and pursue experiential learning methods when designing curriculum, then the expected outcome may be taken in other more fruitful directions (Feiman-Nemser 2001). Experiments therefore might be a relevant and obvious way forward in order to contextualize, adapt, and expand given methods and approaches (Vesper and Gartner 1997).

Feiman-Nemser (2001) argued that educators must know and understand the subjects they teach beyond a pedagogical perspective. Shulman (1986) identified three aspects of developing subject-matter knowledge for teaching in general: (a) knowledge of central facts, theories, concepts, and procedures in a given field; (b) knowledge of explanatory frameworks to connect and organize ideas; and (c) knowledge of the rules of evidence and proof (Gudmundsdottir and Shulman 1987; Shulman 1986). This indicates that general views of learning include levels similar to those suggested by Hytti and O'Gorman (2004). The transition of new teachers from a university college setting to a primary school setting has been documented especially well in research (Korthagen and Kessels 1999). This research adds to the discussion in the current chapter related to professionalism and the pedagogical side of teaching. How would entrepreneurship education be affected if all of the educators had a basic professional foundation in experiential learning methods, or what Mednick (1962) called a 'response repertoire' in creative methods (Mednick 1962, p. 22)? Further research must be done to expand these initial findings. Kolb's (1984) learning cycle is also widely used; more productive research could be conducted within entrepreneurship education to understand and explain experiential learning in connection to updated views on learning theory (Illeris 2004, 2014).

Within philosophies of experiential learning, basic evidence is still lacking about what specific pedagogical activities are related to the various notions of lecturing *about*, advocating *for*, and teaching *through* (Garavan and O'Cinneide 1994), but these can still be adapted in different contexts (Welter 2011). If experiential learning does not involve the

same activities in differing contexts, maybe the conceptualization of learning should be elaborated and investigated much further, something Hoppe et al. (2017) also recommended.

The discussion will end with a short narrative illustrating the complexity of the problem of experiential learning philosophies of enterprise and entrepreneurship education: An educator told me that her campus hosted three different health education programmes under the same roof. But it was clear when it was pedagogues versus nurses versus therapists who had used a classroom. One clear indicator was the various materials used (and left) in the room. Materializations and manifestations in different professions need to be elaborated on and documented to inform educators who are designing curricula and learning processes, something that research within entrepreneurship education also indicates (Blenker et al. 2012; Juvonen 2012). Each professional group had its own ways of encapsulating and understanding experiential learning processes, and that may be the biggest problem within entrepreneurship education, something that Welter (2011) analysed in depth but also a topic that needs much more investigation.

Some educational settings can nurture entrepreneurship education with new students from day one, creating experiences of professional life in that particular field, whereas educators in other contexts argue that students need a professional foundational basis before endeavouring into experiential learning processes. Where lies the rationale behind these underlying philosophies of learning? Why are some students fit for experience learning while others are fit for theoretical learning? Are some educational institutions more or less fit for experience learning, eg. universities of applied sciences (Kettunen 2011).

One answer could be that only by raising the level of pedagogical knowledge and 'response repertoire' amongst educators can these very different contexts be met with appropriate pedagogical methods that meet the entrepreneurial potential of that specific group of students—that is, developing a professional entrepreneurial identity amongst educators that will allow them to design and develop relevant experiential learning activities and learning processes.

Figure 1.1 illustrates how the relation between philosophies of experiential learning can be viewed in order to provide educators with more clarity when choosing one or another approach and related pedagogical

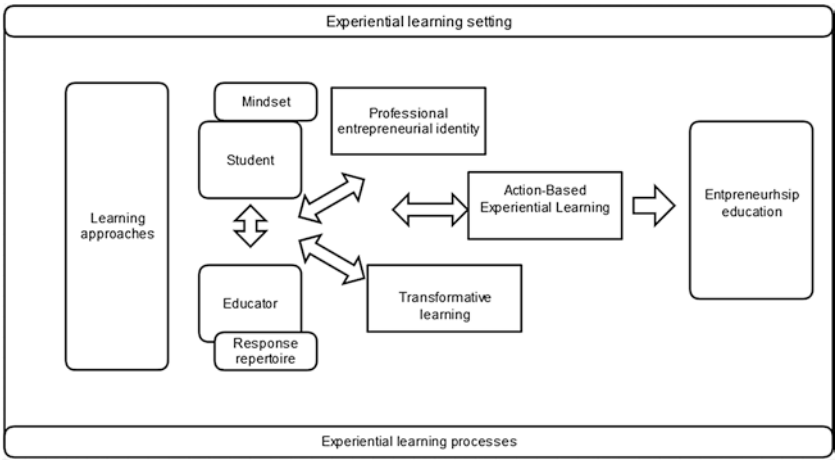

Fig. 1.1 Proposed relation between philosophies of experiential learning

activities in a curriculum design. No learning theory can stand alone, because interplay, variation, and differentiation are important in experiential learning processes in order to create a diverse pedagogical approach incorporating various different activities. The figure exemplifies some interrelated connections and dynamics between key processes within experiential learning process. At the same time, the figure highlights the complexities of understanding some of the causes and effects of learning. The mindset and development of professional identity amongst students (and educators) can serve as a reminder to focus on these aspects. Further research must explore the argument of this chapter: gaming, playing, acting, developing, advancing, and innovation in experiential learning processes in entrepreneurship education.

Conclusion

Where experiential learning philosophies of enterprise and entrepreneurship education interact with philosophies of learning theories, there are many relevant topics to be taken into consideration in order to fully cover the interrelated connections. Applying a one-size-fits-all learning philosophy in entrepreneurship education will result in the educator failing to

include other meaningful learning approaches in his/her curriculum design and, by that, limiting the diversity of pedagogical activities and narrowing interplay, variation, and differentiation in the entrepreneurship classroom. Many debates about learning philosophies provide models of educational approaches to entrepreneurship that can provide beneficial analytical structures to better research, undertake, and design activities. Hannon's notion on about, for, and through is an important point of departure for discussing approaches and understandings of the role of entrepreneurship in higher education. Moreover, the conception of experiential learning provided by David Kolb's four-stage cycle is a well-established model. The current chapter has advocated for an update of learning philosophies in entrepreneurship education. A key point is that philosophies of transformative learning, professional identity, contextualization, and reflection should also be included in order to expand the notions on about, for, and through. A possible way forward is to develop approaches that lead to different educational outcomes, something also Hoppe et al. (2017) highlight in their critique. Furthermore, the educator's own ability to differentiate and experiment with known learning approaches must be further investigated in order to develop new understandings of the manifold options of philosophies of learning provided and connected with their practical application.

References

Austin, R. D., & Hjorth, D. (2012). Case-based co-creation of learning processes. *MPP News, 15*(2), 11–14.

Bager, T. (2011). Entrepreneurship education and new venture creation: A comprehensive approach. In K. Hindle & K. Klyver (Eds.), *Handbook of Research on New Venture Creation* (pp. 299–315). Cheltenham: Edward Elgar Publishing.

Blank, S. (2013). Why the lean start-up changes everything. *Harvard Business Review, 91*(5), 63–72.

Blenker, P., Frederiksen, S. H., Korsgaard, S., Müller, S., Neergaard, H., & Thrane, C. (2012). Entrepreneurship as everyday practice: Towards a personalized pedagogy of enterprise education. *Industry and Higher Education, 26*(6), 417–430.

Bridge, S. (2017). Is 'entrepreneurship' the problem in entrepreneurship education? *Education + Training, 59*(7/8), 740–750.

Carrier, C. (2007). Strategies for teaching entrepreneurship: What else beyond lectures, case studies and business plans. *Handbook of Research in Entrepreneurship Education, 1*, 143–159.

Cope, J. (2003). Entrepreneurial learning and critical reflection discontinuous events as triggers for 'higher-level' learning. *Management Learning, 34*(4), 429–450.

Cope, J. (2005). Toward a dynamic learning perspective of entrepreneurship. *Entrepreneurship Theory and Practice, 29*(4), 373–397.

Cope, J., & Watts, G. (2000). Learning by doing—An exploration of experience, critical incidents and reflection in entrepreneurial learning. *International Journal of Entrepreneurial Behaviour & Research, 6*(3), 104–124.

Donnellon, A., Ollila, S., & Middleton, K. W. (2014). Constructing entrepreneurial identity in entrepreneurship education. *The International Journal of Management Education, 12*(3), 490–499.

Fiet, J. O. (2001). The pedagogical side of entrepreneurship theory. *Journal of Business Venturing, 16*(2), 101–117.

Feiman-Nemser, S. (2001). From preparation to practice: Designing a continuum to strengthen and sustain teaching. *The Teachers College Record, 103*(6), 1013–1055.

Foss, L., Oftedal, E. M., & Lakovleva, T. (2013). Action-based education in academic entrepreneurship: A new role of the student? In *Cooperation, clusters, and knowledge transfer* (pp. 249–263). Berlin/Heidelberg: Springer.

Garavan, T. N., & O'Cinneide, B. (1994). Entrepreneurship education and training programmes: A review and evaluation—Part 1. *Journal of European Industrial Training, 18*(8), 3–12.

Gibb, A. (2002). In pursuit of new 'enterprise and 'entrepreneurship' paradigm for learning: Creative destruction, new values, new ways of doing things and new combinations of knowledge. *International Journal of Management Reviews, 4*(3), 233–269.

Gibb, A. (2012). Exploring the synergistic potential in entrepreneurial university development: Towards the building of a strategic framework. *Annals of Innovation and Entrepreneurship, 3*(1), 16742.

Gudmundsdottir, S., & Shulman, L. (1987). Pedagogical content knowledge in social studies. *Scandinavian Journal of Educational Research, 31*(2), 59–70.

Hannon, P. D. (2005). Philosophies of enterprise and entrepreneurship education and challenges for higher education in the UK. *The International Journal of Entrepreneurship and Innovation, 6*(2), 105–114.

Hannon, P. D. (2006). Teaching pigeons to dance: Sense and meaning in entrepreneurship education. *Education Training, 48*(5), 296–308.

Hartshorn, C., & Hannon, P. D. (2005). Paradoxes in entrepreneurship education: Chalk and talk or chalk and cheese? A case approach. *Education+ Training, 47*(8/9), 616–627.

Honig, B. (2004). Entrepreneurship education: Toward a model of contingency-based business planning. *Academy of Management Learning & Education, 3*(3), 258–273.

Hoppe, M., Westerberg, M., & Leffler, E. (2017). Educational approaches to entrepreneurship in higher education—A view from the Swedish horizon. *Education + Training, 59*(7/8), 751–767.

Hytti, U., & Heinonen, J. (2013). Heroic and humane entrepreneurs: Identity work in entrepreneurship education. *Education+ Training, 55*(8/9), 886–898.

Hytti, U., & O'Gorman, C. (2004). What is 'enterprise education'? An analysis of the objectives and methods of enterprise education programmes in four European countries. *Education Training, 46*(1), 11–23.

Illeris, K. (2004). Transformative learning in the perspective of a comprehensive learning theory. *Journal of Transformative Education, 2*(2), 79–89.

Illeris, K. (2014). Transformative learning re-defined: As changes in elements of the identity. *International Journal of Lifelong Education, 33*(5), 573–586.

Juvonen, P. (2012). *Fostering entrepreneurship by developing a new learning environment within a Finnish university of applied sciences*. Edited by T. Burger-Helmchen, p. 225.

Kempster, S., & Cope, J. (2010). Learning to lead in the entrepreneurial context. *International Journal of Entrepreneurial Behavior & Research, 16*(1), 5–34.

Kettunen, J. (2011). Innovation pedagogy for universities of applied sciences. *Creative Education, 2*(01), 56–62.

Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development* (1st ed.). Englewood Cliffs: Prentice Hall.

Kolb, A. Y., & Kolb, D. A. (2005). Learning styles and learning spaces: Enhancing experiential learning in higher education. *Academy of Management Learning & Education, 4*(2), 193–212.

Krueger, N. F. (2007). What lies beneath? The experiential essence of entrepreneurial thinking. *Entrepreneurship Theory and Practice, 31*(1), 123–138.

Lackéus, M. (2014). An emotion based approach to assessing entrepreneurial education. *The International Journal of Management Education, 12*(3), 374–396.

Lackéus, M. (2015). *Entrepreneurship in education: What, why, when, how*. Trento: Background Paper for OECD-LEED.

Lackéus, M., Lundqvist, M., & Middleton, K. W. (2016). Bridging the traditional-progressive education rift through entrepreneurship. *International Journal of Entrepreneurial Behavior & Research, 22*(6), 777–803.

Li, T., Greenberg, B. A., & Nicholls, J. A. F. (2007). Teaching experiential learning: Adoption of an innovative course in an MBA marketing curriculum. *Journal of Marketing Education, 29*(1), 25–33.

Lindgren, M., & Packendorff, J. (2009). Social constructionism and entrepreneurship: Basic assumptions and consequences for theory and research. *International Journal of Entrepreneurial Behavior & Research, 15*(1), 25–47.

Mednick, S. (1962). The associative basis of the creative process. *Psychological Review, 69*(3), 220.

Mezirow, J. (1990). How critical reflection triggers transformative learning. In J. Mezirow (Ed.), *Adulthood* (pp. 1–20). San Francisco: Jossey-Bass.

Mezirow, J. (1997). Transformative learning: Theory to practice. In *New directions for adult and continuing education* (74th ed., pp. 5–12). San Francisco: Wiley.

Middleton, K. W., Mueller, S., Blenker, P., Neergaard, H., & Tunstall, R. (2014). *Experience-based learning in entrepreneurship education—A comparative study of four programmes in Europe*. Paper presented at RENT, Luxembourg.

Moon, J. A. (2004). *A handbook of reflective and experiential learning: Theory and practice*. New York: Psychology Press.

Mwasalwiba, E. S. (2010). Entrepreneurship education: A review of its objectives, teaching methods, and impact indicators. *Education + Training, 52*(1), 20–47.

Naia, A., Baptista, R., Januário, C., & Trigo, V. (2015). Entrepreneurship education literature in the 2000s. *Journal of Entrepreneurship Education, 18*(1), 111.

Neergaard, H., Robinson, S., Tanggaard, L., & Krueger, N. (2016). New horizons in entrepreneurship: From teacher-led to student-centered learning. *Education+Training, 58*(7/8), 661–683.

Nielsen, S. L., & Lassen, A. H. (2012). Identity in entrepreneurship effectuation theory: A supplementary framework. *International Entrepreneurship and Management Journal, 8*(3), 373–389.

Ollila, S., & Williams Middleton, K. (2013). Exploring entrepreneurial identity construction: The case of an actionbased entrepreneurship education. In Nordic Academy of Management (NFF), Reykjavik Iceland, August 21–23.

Pepin, M. (2012). Enterprise education: A Deweyan perspective. *Education+ Training, 54*(8/9), 801–812.

Piihl, J., Rasmussen, J. S., & Rowley, J. (2014). Internships as case-based learning for professional practice. In *Case-based learning in higher education* (pp. 177–196). Oxfordshire: Libri Publishing.

Pittaway, L., & Cope, J. (2007a). Entrepreneurship education: A systematic review of the evidence. *International Small Business Journal, 25*(5), 479–510.

Pittaway, L., & Cope, J. (2007b). Simulating entrepreneurial learning integrating experiential and collaborative approaches to learning. *Management Learning, 38*(2), 211–233.

Pittaway, L., Hannon, P., Gibb, A., & Thompson, J. (2009). Assessment practice in enterprise education. *International Journal of Entrepreneurial Behavior & Research, 15*(1), 71–93.

Pittaway, L., & Thorpe, R. (2012). A framework for entrepreneurial learning: A tribute to Jason Cope. *Entrepreneurship & Regional Development, 24*(9–10), 837–859.

Politis, D. (2005). The process of entrepreneurial learning: A conceptual framework. *Entrepreneurship Theory and Practice, 29*(4), 399–424.

Ramsgaard, M. B., & Christensen, M. E. (2018). Interplay of entrepreneurial learning forms: a case study of experiential learning settings. *Innovations in Education and Teaching International, 55*(1), 55–64.

Ramsgaard, M. B., & Østergaard, S. J. (2017). An entrepreneurial learning approach to assessment of internships. *Education+ Training*.

Rasmussen, E. A., & Sørheim, R. (2006). Action-based entrepreneurship education. *Technovation, 26*(2), 185–194.

Ries, E. (2011). *The lean startup: How today's entrepreneurs use continuous innovation to create radically successful businesses*. San Francisco: Crown Books.

Sarasvathy, S. D. (2001). Causation and effectuation: Toward a theoretical shift from economic inevitability to entrepreneurial contingency. *Academy of Management Review, 26*(2), 243–263.

Sarasvathy, S. D. (2008). *Effectuation: Elements of entrepreneurial expertise*. Cheltenham: Edward Elgar Publishing.

Schön, D. A. (1992). The theory of inquiry: Dewey's legacy to education. *Curriculum Inquiry, 22*, 119–139.

Segal, G., Schoenfeld, J., & Borgia, D. (2007). Which classroom-related activities enhance students' entrepreneurial interests and goals? A social cognitive career theory perspective. *Academy of Entrepreneurship Journal, 13*(2), 79–99.

Shulman, L. S. (1986). Those who understand: Knowledge growth in teaching. *Educational Researcher, 15*(2), 4–14.

Varghese, M. E., Parker, L. C., Adedokun, O., Shively, M., Burgess, W., Childress, A., & Bessenbacher, A. (2012). Experiential internships: Understanding the process of student learning in small business internships. *Industry and Higher Education, 26*(5), 357–367.

Vesper, K. H., & Gartner, W. B. (1997). Measuring progress in entrepreneurship education. *Journal of Business Venturing, 12*(5), 403–421.

Welter, F. (2011). Contextualizing entrepreneurship—Conceptual challenges and ways forward. *Entrepreneurship Theory and Practice, 35*(1), 165–184.

Williams Middleton, K. L. (2013). Becoming entrepreneurial: Gaining legitimacy in the nascent phase. *International Journal of Entrepreneurial Behavior & Research, 19*(4), 404–424.

2

Assessing Experiential Entrepreneurship Education: Key Insights from Five Methods in Use at a Venture Creation Programme

Martin Lackéus and Karen Williams Middleton

Introduction

Assessment is a key challenge in experiential education (Eyler 2009; Jarvis 2002). Variables such as student performance and satisfaction among students do not necessarily correlate with deep learning (Gosen and Washbush 2004; Molee et al. 2011). Expanding assessment from a focus on academic achievements to also take practice-based experiences into account is challenging for many educational institutions (Ferns and Moore 2012; Yorke 2011). A key reason is that learning from experience is a fundamentally complex phenomenon (Kayes 2002; Kolb 1984). Each individual learns in a unique way, specific to one's own learning style and preference. Learning is connected to the personal emotive associations driven by individual action and emotion and, at the same time, operates in a complex and interconnected context, driven by social

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interaction. Thus, learning from experience is both individual and social, cognitive and emotive, structured and fluid. These characteristics of experiential learning and education pose some fundamental challenges to the important task of determining if students have learned in accordance with the teacher's intentions or not.

Entrepreneurship education relies significantly on experiential learning (Krueger 2009; Kuratko 2005; Neck et al. 2014). There is considerable consensus among entrepreneurship scholars that learning to become an entrepreneur requires an experiential approach (Cope 2005; Minniti and Bygrave 2001; Politis 2005). This has resulted in significant variation and experimentation both in experiential education approaches and in applied methods for assessment of learning outcomes. While a majority of entrepreneurship courses and programmes still apply a traditional teaching approach (Pittaway and Edwards 2012), many faculty groups have been extensively engaged in developing experiential education. One extreme case of experiential entrepreneurship education utilizes a venture creation approach (Ollila and Williams Middleton 2011), in which entrepreneurship education is integrated with university-based business incubation. Programmes utilizing this approach have been defined as venture creation programmes (VCPs), where the creation of a real-life venture is the primary vessel for learning (Lackéus and Williams Middleton 2015). The authenticity and real-life consequences of creating a new venture as part of a VCP contribute to triggering an emotional roller-coaster for students, often resulting in strong development of their entrepreneurial competencies (Barr et al. 2009; Lackéus 2013; Meyer et al. 2011; Thursby et al. 2009).

While previous work has outlined many general characteristics of VCPs in considerable detail (for some recent examples, see Adams 2016; Bozward and Rogers-Draycott 2017; Lockyer and Adams 2014; Morland and Thompson 2016), this chapter focuses specifically on assessment practices of VCPs. If a VCP constitutes one of the most extreme forms of experiential entrepreneurship education, it should be possible to gain new insights about assessment of experiential education from studying assessment practices at VCPs more in-depth. The purpose of this chapter is therefore to explore the following question: What can be learned about experiential education assessment in general from the specific case of a well-developed and mature VCP?

The chapter proceeds as follows. First, a literature review is conducted on assessment methods in general and on assessment practices in entrepreneurship education. A resulting set of five assessment methods are then the applied to the specialized VCP case, after a short description and qualification of the VCP case is presented. Findings from the VCP case are summarized along the five assessment methods and then analysed through a discussion of some key emerging themes. The chapter concludes with implications and suggestions for future research.

Literature Review

Five Approaches for Assessing Experiential Education

While assessment of students is a key challenge for experiential educators, there are nevertheless a few different approaches that have been discussed by experiential education scholars (McNamara 2013; Roberts 2015). This section summarizes five such assessment approaches: performance assessment, reflective assessment, peer/self-assessment, e-assessment and constructive alignment. An overview is provided in Table 2.1. Many of these five approaches belong to the overarching category of formative assessment, defined as assessment with a purpose of improving the learning process (Black and Wiliam 1998). Formative assessment has been claimed to be particularly relevant to experiential education (Roberts 2015). It produces various kinds of feedback information that can be used to improve an ongoing learning process, either through actions taken by teachers or by students themselves. This can be contrasted to summative assessment, defined as assessment with a purpose of awarding certificates, diplomas and degrees that can be used for later stages of education and for work-life qualification (Isaacs et al. 2013). Summative assessment is common in traditional education (Ferns and Comfort 2014).

Performance Assessment

Performance assessment is about letting students perform meaningful and hands-on real-life tasks and assess them based on their task accomplishment (Isaacs et al. 2013). It requires students to perform a task

Table 2.1 A brief summary of five different assessment methods

Type	Description	Benefits	Challenges
Performance assessment	Accomplishment of real-life tasks	Active Promotes critical thinking Problem solving	Time consuming Subjective
Reflective assessment	Reflections upon own learning experience	Easy to get students started Meta-cognition focus	Non-standardizable Requires teacher reaction/feedback Difficult to reach depth of reflection
Peer and self-assessment	Student-driven assessment of self and others	Student perspective Student takes responsibility for own and others' learning	Validity/reliability Requires training and faculty feedback and/or guidance
E-assessment	Computer-assisted assessment	Saves teachers' time Versatile	Risk for surface learning Cost of technology
Constructive alignment	Assessment aligned with critical learning activities	Bridges gap between theory and practice	Requires careful planning

where they demonstrate their knowledge and skills. Teachers can assess both the behavioural process itself and any resulting artefacts produced by the students. Although simulations are common, it is preferable that tasks are done in authentic settings, mirroring or even representing 'real-world' performance (Biggs and Tang 2011). The benefits of performance assessment are particularly evident when assessing more complex and higher-order skills (Darling-Hammond 1994). It has also been shown to engage and motivate students and foster critical thinking and problem solving. Performance assessment is common in arts (e.g. dance, music, acting) and vocational education (e.g. vehicle repair, hairdressing). While more inclusive than written examination, performance assessment can be difficult to design and deploy, often requiring substantial investment of time in the assessment process and open to subjectivity and lack of clear distinction between different levels of achievement.

Reflective Assessment

Reflective assessment empowers students to be central to their own learning by having students reflect individually or in groups upon their own learning experience (Bond et al. 2011; Ellis 2001; Gibbs 1988). Reflections can be done quite easily in written or oral formats. This serves the fundamental purpose of improving learning, thus positioning it as a formative means of assessment. The learning process is captured through step-by-step self-evaluation of what was experienced, including description of what happened, what was thought/felt, what was positive or negative, what can be interpreted from the situation, what was missing and what would be done differently if met with the same situation (Gibbs 1988). Reflection fosters meta-cognition of a situation with tacit association to what occurred translated into higher-level understanding. However, reflection can result in a large conglomeration of information to assess, which can be both time consuming and place requirements on the educator to qualify reflections through additional questioning or feedback. It is also difficult to reach a reflective depth in the content of students' reflections (Moon 2004).

Peer and Self-Assessment

Peer assessment involves students assessing one another in terms of knowledge, skills and/or performance (Dochy et al. 1999). The assessment can be qualitative or consist of marking each other, which may or may not be criteria based. Peer assessment is strongly linked to self-assessment, which is the involvement of students in judging their own achievement and learning. Peer assessment often informs self-assessment, since assessing others has been shown to increase awareness of and engagement in own performance and learning relative to standards and learning goals (Isaacs et al. 2013). Peer and self-assessment can thus serve not only as a means of assessing students but also as a path towards improved learning and academic performance. A challenge in applying

peer assessment is that it is difficult to provide constructive feedback, requiring specific student training in how to assess others and nurturing of a trustful culture in the class (Isaacs et al. 2013).

E-Assessment

E-assessment involves the use of computers to support assessment (Stödberg 2012), ranging from simple computer-based tests with multiple-choice questions to complex and multimedia-rich simulations, games, case studies and e-portfolios. It is the corresponding assessment phenomenon to e-learning, that is, the practice of computer-supported learning. E-assessment can be used both for high-stakes and for low-stakes testing, as well as both for summative and formative assessment (Boyle and Hutchison 2009). Common topics in e-assessment include distribution and collection of responses as well as construction and marking of questions and tasks. E-assessment can free time for teachers that they otherwise would have needed to spend on administrative tasks associated to assessing students. As many of the less complex forms of e-assessment rely on simple right-or-wrong questions, e-assessment has often been accused promoting an outdated model of surface learning, focusing solely on recall of simple facts (Jordan and Mitchell 2009).

Constructive Alignment

Constructive alignment is a principle stating that teachers should align what the students need to do in order to learn with what is being assessed (Biggs and Tang 2011). Since students construct meaning through the learning activities they undertake, any assessment should therefore align with these activities so that the activities students are supposed to learn from are the very ones being assessed. Constructive alignment bridges the gap between declarative knowledge and personal experience by requiring all students to go through those experiences that are necessary to acquire the intended learning outcomes (Biggs and Tang 2011, p. 7 and p. 97). The approach can require teachers to modify their thinking

around teaching and, in particular, regarding defining levels of understanding. Increased clarity is often needed in terms of what students need to do in order to reach different levels of understanding. The initial stage of establishing an aligned system requires careful consideration and possible redesign of curriculum. This can be a challenge in academic settings where planning time is often a scarce resource.

Assessment in Entrepreneurship Education

There are at least four main focus areas of assessment in entrepreneurship education. First, scholars have tried to assess whether or not entrepreneurship education 'works' in terms of leading to desirable outcomes such as student learning and new business creation (Martin et al. 2013). This kind of scholarly assessment aims to find answers to a long-standing question: 'Can entrepreneurship be taught?' (Henry et al. 2005a, b). Second, teachers and students have placed high value on assessment of institutional capability to teach entrepreneurship (Finkle and Deeds 2001). A number of ranking systems have been provided to cater for this interest through business media outlets such as Entrepreneur Magazine, BusinessWeek and Fortune Magazine (Streeter et al. 2011). Third, a few attempts have been made to assess individual teachers on their ability to teach entrepreneurship (Bacigalupo et al. 2016; Ruskovaara and Pihkala 2016). This is more of a formative assessment approach, letting teachers assess themselves and their institutional context in order to identify potential areas for improvement (Henry 2015; Ruskovaara et al. 2015). Fourth, a wide variety of tools, methods and approaches are available for the assessment of students in entrepreneurship education (Pittaway and Edwards 2012; Pittaway et al. 2009). Since student assessment is a key focus of this chapter, it will be discussed more in-depth.

A recent empirical study by Pittaway and Edwards (2012) showed that the most common assessment method in entrepreneurship education was to let students write a business plan. Other common assessment methods were oral presentations, mandatory classes, tests, exams, essays and case studies. Less common methods included reflective assessment, peer assessment and interviews. The assessment approach applied depended

largely on which kind of pedagogical approach the teachers had opted for. More traditional courses and programmes emphasizing knowledge acquisition and learning 'about' entrepreneurship employed primarily summative and objective assessment methods, such as tests and exams. More experiential courses emphasizing development of an entrepreneurial mindset by learning 'through' entrepreneurship employed a much higher share of formative and subjective assessment methods, such as reflection and essay writing. Pittaway and Edwards (2012) concluded that apart from a few innovative cases, most assessment approaches opted for in entrepreneurship education were quite traditional, emulating other subject areas. This illustrates the need to study extreme cases of particularly innovative and highly experiential entrepreneurship education programmes if the aim is to generate insights of broader relevance to experiential education assessment.

Very few scholars in entrepreneurship education have related explicitly to any of the five assessment methods for experiential education discussed in the literature review above. Some limited examples will nevertheless be given. Haines (1988) discussed performance assessment in relation to a venture creation programme in terms of assessing students on the number of customers they acquired and the level of profitability of their consulting business. Lans et al. (2015) proposed performance assessment in entrepreneurship education to be based on ability to generate and evaluate new business ideas. Deacon and Harris (2011) found that a blended/reflective pedagogic approach to entrepreneurship education developed a wider range of skills within participants, including shaping their perspective on opportunity. Blenker et al. (2012) stressed the importance of reflective assessment to help tailor entrepreneurship education to be personalized to each individual learner. Pittaway and Edwards (2012) concluded that reflective assessment was rare except for in the most experiential courses and programmes and that there is need to not only include more reflective assessment but also understand how external stakeholders engaged in assessment affect student learning. Human et al. (2005) discussed the use of e-assessment to help students self-assess their entrepreneurial characteristics in order to direct development of specific entrepreneurial skills. Jones and English (2004) described the critical role of peer assessment in shifting to entrepreneurship education which is

student-centric. Peer assessment was used to monitor and reward individual and group performance. Finally, Jones (2006) called for the use of constructive alignment to associate tasks to learning in order for students to assess how well suited they were for entrepreneurial processes.

Method

Research Approach and Design

Case studies constitute rich descriptions of specific instances of a phenomenon, often stemming from a variety of empirical sources (Yin 2008). A case enables research development which is situated and allows for pattern and relationship recognition among and across constructs, as well as provision of underlying argumentation and reasoning (Eisenhardt and Graebner 2007). This chapter utilizes an extreme case selection strategy to facilitate rare insight into a 'clinical' laboratory environment (Schein 1993). The selected VCP spans two decades and the authors have been embedded in the programme in multiple roles, giving access to insights inaccessible to participant observers.

The contextual complexity of the extreme case allows for triangulation of insights from different perspectives and longitudinally across multiple iterative cycles of process—most notably for this chapter, the final year of the master programme where education is embedded in venture incubation (and vice versa). Extreme cases are chosen due to their uniqueness, as they can provide unusual revelation, extreme exemplars and opportunities for unusual research access (Yin 2008). The aim of using this approach is to provide analysis of educational assessment mechanisms based on rich empirical data having both contextual and longitudinal detail including underlying logic and design description from actors involved in all aspects of the education, including not only delivery and assessment, but legitimacy and design.

Analytical design builds upon the set of five assessment methods presented in the previous section. These qualified assessment methods are investigated in the unique case. Analysis stems from access to programme documentation, in terms of not only course and content description but

also programme design documentation and insights. Interviews are conducted with programme responsibile staff, to further insight into contextual details influencing choice of pedagogy and assessment and to access reflection upon applicability and adaptation of various choices, as well as description of critical incidents which shaped key decision points.

The Case Studied

The empirical base of this chapter is the two-year international MSc programme in Entrepreneurship and Business Design at Chalmers School of Entrepreneurship (CSE). Situated at Chalmers University of Technology, itself recognized as an entrepreneurial university (McQueen and Wallmark 1982), this nationally renowned programme combines entrepreneurial education and incubation to facilitate a learning through approach (Lackéus and Williams Middleton 2015; Lundqvist and Williams Middleton 2008; Williams Middleton and Donnellon 2014). The CSE programme was top-ranked by the Swedish government in 2009 using an international review board of entrepreneurship education professors, and the collaborating incubator was ranked number eight in the world and second in Europe in 2014 by UBI Index. Its status as an extreme case of experiential entrepreneurship education has attracted a number of external scholars studying many different aspects of the programme (Åstebro et al. 2012; Berggren 2011; Johannisson 2016; Lindholm Dahlstrand and Berggren 2010; Rasmussen et al. 2006; Rasmussen and Sørheim 2006; Warhuus and Basaiawmoit 2014).

CSE represents an innovative technology transfer mechanism at Chalmers. Its inception was based upon an analysis that a key scarce resource was entrepreneurial individuals, rather than a lack of promising ideas or other resources. Because of this, CSE has a specialized admissions programme which emphasizes the importance of commitment and motivation for a dual learning and apprenticeship process. Student cohorts are multidisciplinary, with backgrounds primarily from technology or business, with a minority of admitted students holding design, legal and/or bio-science competence. Students are typically between 24 and 28 years of age.

The first year of the education is focused on creating a robust foundation for the second year of highly action-based pedagogy. Students are

introduced to concepts and tools around intellectual property, innovation, technology markets and entrepreneurship. They apply them to a shelved idea based on patented technology platforms. Intellectual property assessment, concept design, techno-economic analysis, shareholder agreements, business models and business plans are developed around the idea in order to simulate early stage venture creation. In the second semester, students take elective courses, including an idea evaluation course. In this course, students act as creative consultancy teams towards inventors and their early stage inventions. They apply design and evaluation tools to determine different types of utility for inventions. Application is on real-world ideas, but for a limited time frame, such that actions are prescribed for the inventors instead of enacted by the students themselves.

The second year of the education embeds the students in an in-curricular real-life venture creation environment (Ollila and Williams Middleton 2011). Students are formed into teams of two or three and matched with a technology-based idea often based on a patent or something patentable. Students are placed in the 'driver's seat' of the nascent venture, tasked to incubate and ultimately either incorporate or recycle back to the idea partner. Failure is accepted and encouraged if the idea should prove inviable. The venture is then terminated and a new idea is taken on. Venture ideas are sourced through the collaborating incubator Chalmers Ventures, a Chalmers subsidiary responsible for technology transfer, incubation and seed financing. The venture creation process functions as an in-curricular learning platform. Learning is captured through a 60-credit master thesis where students compile studies applied to the venture process regarding entrepreneurial decision making, product development, market verification, customer development, and business strategy and execution. Students are supported by a network of stakeholders and shareholders.

Critical Underlying Principle of the CSE Case: Creating Value for Others

From its start in 1997 to 2017, more than 80 venture projects from CSE have been incorporated, with 80% survival rate. These 80 companies had a total annual turnover in 2016 exceeding 40 million Euros and employing

around 400 people (Lackéus et al. 2016). More than 450 students have also received an education based on learning *through* venture creation, leading to strong development of entrepreneurial competencies applicable not only in the immediate incorporated ventures but also in independently started ventures, in corporate settings and in public offices. The dual process of value creation and learning represents a critical underlying principle of CSE: 'students-as-givers' that are 'learning-through-creating-value-for-others' (Lackéus 2017b; Lackéus et al. 2016). Students at CSE are thus expected to learn by applying their competencies to create something novel of value to external stakeholders outside their university. The venture that students are expected to start at CSE is, however, merely a vessel for creation of new kinds of value. It is through the essential experience of new value creation, in the vessel of a venture, that the learning of entrepreneurial competencies is achieved. The fundamental objective of the programme is, and has always been, learning of entrepreneurial competencies. This critical underlying value creation principle at CSE is outlined briefly here since it has key implications for assessment.

Findings

As discussed in the introduction, learning is a complex and comprehensive phenomenon. Education designed to embed the learner in the entrepreneurial experience naturally incorporates multiple forms of learning and thus requires multiple means of assessment. The following sections revisit the five assessment methods from the literature review and describe in-depth how they are used at the special empirical VCP case of CSE.

Performance Assessment at CSE

CSE, as a VCP, is fully based on students learning by starting an authentic venture involving engagement with real customers and significant investment of real money. Because of this, CSE is fully aligned to most of the performance assessment characteristics outlined in the literature review section. The opportunity for students to perform in a real-life

entrepreneurial ecosystem has been shown to trigger high levels of engagement and student motivation. It also allows teachers to follow the students as they demonstrate higher-order critical thinking and problem solving. But as venture creation often leads to failure, a key difference in performance assessment at CSE is that teachers are not assessing students on the quality of the resulting venture in terms of profitability, money raised or customers attracted. Performance assessment is instead focused on awareness, development and enactment of key activities in the process leading up to eventual success, stagnation or failure of the venture. Writing a business plan used to be regarded as one of these key activities but has recently been deemed obsolete, as business plans often represented descriptive promises rather than communicating and substantiating reasoning for critical decision making constituting business execution.

CSE manages the common assessment challenge of distinguishing between different levels of student achievement by outsourcing the responsibility for such judgements to non-faculty stakeholders in the entrepreneurial ecosystem. Students are constantly being summatively assessed by business coaches, expert panels, venture competition judges, investors, industry experts, potential customers and peer entrepreneurs, both within and outside the class. Students are also required to design their own assessment process by staging and performing all the necessary tests and experiments needed to critically evaluate their business hypotheses. Faculty have the role of conducting meta-assessment of performance, that is, assessing the students' ability to assess their own venture creation process. This entails judging how the students reason, analyse, justify and communicate their venture creation process and product in writing and orally. Students navigate critical milestones through oral presentations designed into the venturing process. Students first present to each other, then to an internal friendly audience and finally to a critical external audience. Repeated coaching sessions let students develop and hone verbal, visual, content and bodily communication.

The guiding principle of performance assessment at CSE is that faculty provides primarily formative assessment and that external stakeholders provide primarily summative assessment. Summative assessment is presented in the form of awards, oral judgements and a resulting reputation

within the class. In the second year, grading scales are not used, allowing faculty to focus on formative assessment. Students are instead given pass or fail, and incentives to over-perform come from a culture of being judged summatively by stakeholders in the entrepreneurial ecosystem. A critical drawback of such outsourced assessment, requiring faculty attention, is the level of stress some students take upon themselves, due to an inability to monitor their own work-balance levels and regulate perfectionism tendencies.

Reflective Assessment at CSE

Reflective development talks with students and faculty have been a key part of CSE since its inception in 1997. Each student is required to attend at least four group development talks and two individual development talks during the venture creation process of the second year. All talks are facilitated by a faculty member. The main purpose is to stimulate reflective discussion, where faculty and students together can sense-make the entrepreneurial journey taking place. Attending these talks is not 'visiting the psychiatrist' or 'reporting to faculty'. The talks are a space for reflection, with content 'governed' by the students, including discretionary choice of what is disclosed. They are facilitated by the faculty in such a way as to build and maintain trust, both between the faculty member and the students and across the students. A balancing act is required between letting students bring up critique without consequences and faculty taking action if critical issues surface. Importantly, all persons involved hold responsibility for the quality and sincerity of the discussion.

Development talks at CSE serve as a space for asking questions that shift students' perspective, triggering them to look inwardly. Students are often not able to directly answer questions asked, necessitating further reflection between talks, and thus shifting their mindset from only doing to also including critical reasoning. The talks also provide a space free from the usual performance requirements, the only expectation instead being that they think about and sense-make what has happened to them. At times, the talks serve as a space for students to project or

release frustrations, in order to detach failure or disappointments from themselves, so that they can then manage their emotional reaction to failure. It is often critical that the dialogue be supported without the facilitator taking responsibility for externally triggered unforeseen contingencies. This is in order to recognize the reality of the entrepreneurial process as generating the emotional roller-coaster experienced and help the students learn how to manage the multiple contextual factors that come with being embedded in a venture. Frustration is acknowledged and then constructively mirrored back to the students when suitable and within their area of responsibility. This leverages deep reflection, since negative experiences often represent critical and potentially transformative events that students can learn from (Jarvis 2006; Mezirow 1991). The development talks can also help detect if students are suffering from the sheer authenticity of the programme, for example, serving as an early warning system for dysfunctional behaviour, unhealthy stress levels or unrealistic expectations.

Students are also required to deliver several written reflections. Exams and reports frequently include questions and sections where students are expected to reflect upon how they used theory in practice and whether it was appropriate or not in their specific context. CSE has also applied several different setups for reflective diaries, though this has been challenging from a faculty workload perspective. A recent remedy to this has been to implement a digital tool facilitating task-based reflection, as explained in detail in the findings section.

Peer and Self-Assessment at CSE

The strongest peer assessment characteristic at CSE is the informal effect of students having access to a physical office in the second year. Each venture team gets 15 square meters of office space as a base for daily operations. Working with the same team for a full academic year in such a small cubicle creates a continuous intra-team peer assessment process. The proximity to other teams also creates a ‘pressure cooker’ culture of comparison and competition between teams. Students generate subjective and often unspoken judgement of what ‘good’ performance is.

Individuals and teams select which of their peers they want to learn the most from and be inspired by. Being constantly exposed to peer assessment can also result in constant cycles of self-assessment, where students frequently ask themselves 'Am I good enough?', which can have both constructive and destructive consequences.

In addition to informal peer and self-assessment, there are also a number of formal mechanisms in place. The team composition process in the first year contains a mandatory written peer assessment task where each student is required to assess the perceived qualities of each of their classmates. Here students are required to justify why they think any given classmate is complementary in relation to their own strengths and weaknesses in regard to venture creation. This triggers student self-insight and social awareness and also facilitates faculty decisions on team composition. The second year also contains a number of oral presentations to the class, where each group is responsible for giving constructive feedback to another group's presentation. The students are also asked to give out awards for 'best team', where some key criteria are being open to feedback, supporting the rest of the class and focusing on learning the most from the CSE experience.

E-Assessment at CSE

A number of common digital tools are in use at CSE. A digital learning management system (Ping Pong) is used for receiving, managing and approving written assignments, including automatic plagiarism checks. Video platforms such as YouTube are also used for 'flipped classroom' lectures, that is, lectures that students can watch at home or at their office when it suits them. There is also an e-assessment tool in use at CSE that is not part of the standard e-assessment toolbox. A unique and innovative e-assessment tool called 'LoopMe' has been developed through a research project at CSE focused on the role emotional events play for students developing their entrepreneurial competencies (Lackéus 2016). LoopMe is a digital and mobile social media platform that allows for simple and relevant one-to-one dialogues between a small team of teachers and many students. It revolves around mandatory action-oriented tasks that a

teacher defines and that students then perform, react emotionally to and reflect upon. LoopMe has been stated to represent a new category of e-assessment tools labelled 'social learning media', that is, social media optimized for social learning (Lackéus 2017a).

CSE faculty have used the LoopMe tool to design action-based learning experiences by breaking the learning process down into around 20 manageable tasks for each semester. Mandatory tasks include making cold calls to potential customers, meeting potential customers, developing team trust, testing venture hypotheses, reflecting on critical emotional events and sharing insights with other teams in the class. Specifying what students are required to do in this way clarifies goals, prompts students to take action and forces students to reflect afterward upon emotions and learnings associated to each task. It also simplifies the process of giving prompt feedback to students in real time as key learning events occur. This has facilitated a more structured formative assessment of a large number of activities that are known to lead to entrepreneurial competence development and venture performance. It has strengthened the relationship between faculty and students, without causing an uncontrollable abundance of information for faculty members. It has also provided a clear structure and support to students around reflections. As the critical incidents and emotions are captured digitally together with personal reflections produced in the moment, they can also be utilized for individual, peer-to-peer and even class-wide discussions around comparable or replicated experiences, facilitating multiple loops of learning.

Constructive Alignment at CSE

CSE is designed around a mandatory real-life venture creation process, with an intention to incorporate the venture if it becomes successful. This makes CSE constructively aligned on the highest level of analysis, based on a view that creating a venture is what students need to do in order to become more entrepreneurial. On a more fine-grained level of analysis, CSE faculty have undertaken significant programme development work in order to secure constructive alignment. Learning outcomes have been specified primarily in action-oriented terms to reflect a conviction that

students learn entrepreneurship primarily by enacting a role as entrepreneur. Four areas of key competence have been articulated at CSE. Mandatory activities are specified in each area that are considered to contribute to the development of each competence. Activities in these four areas will now be briefly exemplified.

To assess competencies related to business strategy and execution, students at CSE are required to work with a deep technology venture idea during nine months, incubating it to a point of validation or termination. Mandatory milestones include securing intellectual property rights over the idea, setting up and continuously reporting to a governing board, validating technology and market assumptions, securing necessary financial resources and presenting to the stakeholder community. To assess competencies related to entrepreneurial mindset and teamwork, students are required to constantly work and deliver in a team for extended time periods and participate in individual and group development talks as well as other kinds of peer and self-assessment. They are also required to collaborate successfully with the provider of the technology-based venture idea and evidence it by successfully negotiating and signing a collaboration agreement. To assess competencies related to technology and product development, students are required to further develop their project's deep technology venture idea for a full academic year. They are expected to apply intellectual property skills on the idea, as well as design and carry out real-life technology verification studies through prototyping and writing up of results. To assess competencies related to communication and substantiation of value, students are required to establish contact by phone with a minimum of five real-life potential customers and meet two of them in physical meetings. They are required to communicate the value proposition of their venture through real-life social media marketing channels. They also must meet and discuss with two sales experts in the industry of their venture, documenting key industry-specific sales techniques.

Discussion

Findings show that all of the five assessment methods that literature stipulated to be of relevance to experiential education are extensively used at CSE. A number of interconnected aspects between these methods in use

can be observed. For example, self-reflections around constructively aligned performance tasks are being collected through an innovative e-assessment tool. External stakeholders also conduct summative performance assessments, triggering both peer assessment and self-assessment within the class. The discussion section aims to draw on such interconnections in order to make explicit some generalizable patterns of potential relevance beyond the CSE case.

Assessment of Value Versus Assessment of Learning

The findings from the CSE case illustrate the key role that the underpinning 'learning-through-creating-value-for-others' perspective plays for making the intricate web of varying assessment practices hold together. When engaging external stakeholders in assessment work, it is not assessment of *learning* that is outsourced to these external stakeholders. It is rather an assessment of the *value* that students have (or have not) created, as viewed from the perspective of the presumably qualified external stakeholder. The value proposition put forward by the students is assessed professionally by external stakeholders over the phone, through written materials, in physical meetings, in pitch sessions and through other means as outlined in the findings section. The external stakeholders' motivation for engaging with CSE students is grounded in their field of expertise and in the mutual value that can come out of it, rather than in a capacity to assess student learning. Assessing and appreciating the value created by the students is in fact what makes the stakeholders want to be engaged. However, it may not always be clear to students that the external stakeholders are making such a distinction, and this is a critical challenge for faculty to take into consideration.

In a similar fashion, faculty does not engage in assessing the value that students create. Teachers instead focus on assessing student learning from value creation activities through performance assessment, reflective assessment, peer/self-assessment and e-assessment as described in the findings section. Assessing the value of a core technology, service or product in the shape of a venture's commercial value proposition is not something that educators can or should effectively assess. It is rather actors in the entrepreneurial ecosystem and in the marketplace that should determine the

viability of a venture's value proposition, such as business coaches, board members, investors, industry experts, potential customers and others. Such a set of key actors has been labelled a 'role set' and plays a fundamental role in the CSE case for developing students' entrepreneurial competencies and identity (Williams Middleton 2013).

The assessment work that such a role set contributes with can thus not be used for grading students or for awarding formal qualifications, since the purpose of education is not venture success or even value creation in general, but rather student learning. It would thus not make sense to pass those students that built a successful venture and fail those students that terminated their venture. Assessment of value rather serves as a powerful source of feedback and resulting strong increase in motivation for the students. Previous research has established strong links between motivation and learning (Boekaerts 2010). Such assessment could then be classified as formative assessment. Even if it is about summatively assessing the value proposition that has been put forward by the students, the reason teachers include it is because it deepens student learning. Its delivery forms are often made up of summarized oral judgements and awards towards the end of a tandem learning and value creation process. Such judgements often drive the learning process forward more efficiently than grades.

Synthesizing into a Coherent Assessment Model

The assessment work distribution between the different parties involved in CSE has been modelled in Fig. 2.1. In line with constructive alignment principles, assessment is focused on those activities that students need to do in order to learn entrepreneurial competencies. Drawing on the key role that emotions play for learning (Boekaerts 2010; Dirkx 2001; Postle 1993), emphasis is put on those activities that are particularly emotion-laden. This frequently activates both deep learning and powerful feedback in the shape of assessment conducted by external stakeholders. A carefully selected set of emotional activities are summatively assessed by the teacher in a pass/fail manner, as described in the findings section. Reflections around these activities represent a mandatory formative assessment component, where

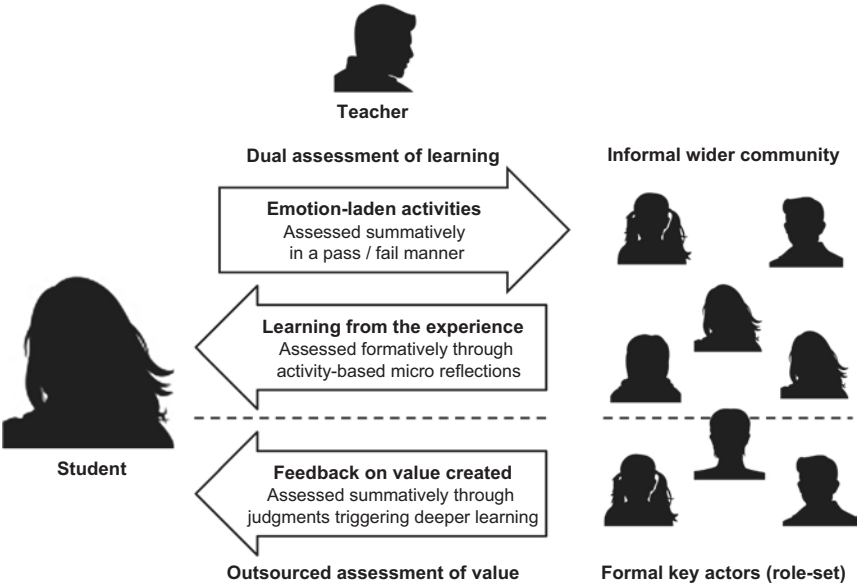

Fig. 2.1 A proposed model for assessment in experiential education containing dual assessment of learning and outsourced assessment of value

the aim is to get students to reflect on what they have learned from the emotionally charged activities and relate this to relevant theories and literature. This then hopefully generates self-directed learners capable of independent and socially responsible thinking and acting. Students also learn how to translate relevant theories and reflections from practice into a personalized theory of what works for them (Williams Middleton and Donnellon 2014).

A more general proposition can now be generated from the CSE case; experiential education teachers should engage in a dual assessment process where emotion-laden activities are summatively assessed in a pass/fail manner and where the resulting deep learning is formatively assessed through mandatory reflections. Assessment of value created by the students should be outsourced to external stakeholders. Some of these stakeholders can be formalized into a carefully designed and formally contracted role set, and others could be part of a wider community that students interact with based on situational fit.

A New Assessment Method: Capturing Learning from Emotion-Laden Activities

The CSE case contains a number of different kinds of emotion-laden activities that are assessed in a dual-process manner. Students learn by performing and reflecting on a number of mandatory activities such as external stakeholder interaction, extensive teamwork, applying theory in practice, managing people, creating value for others, managing uncertainty, presenting to others and overcoming competence gaps (Lackéus 2014). Using summative assessment in a pass/fail manner to direct students to experience and reflect upon such emotion-laden activities is here posited to represent a new assessment method: emotion-laden activity-based assessment. To the authors' knowledge, this has not previously been described in literature on assessment in experiential education. This is argued to represent a new way to design and deliver experiential education. Drawing from the constructive alignment principles, educators can ask themselves the following key question: 'What emotion-laden activities do our students need to *do* in order to *learn* the competencies we want them to learn?' When a list of such key activities has been generated, they can be mandated to students and assessed in a dual manner as shown in Fig. 2.1.

The CSE case shows that this novel assessment method needs to be applied with certain care. Information to students about the full implications of performing emotion-laden activities may need to be carefully thought through. Students could perceive in hindsight that faculty had access to information that could have prevented a failure or a particularly emotional experience. Furthermore, not all students will be in the same stage at the same time. This can put a strain on peer learning as circumstances will make some students learn important lessons before others. As these others have not yet had the emotionally charged experience, they cannot always appreciate the learning that their peer students have gained. Capturing the learning from emotion-laden activities thus puts new requirements on educators in terms of sequencing the learning experience and communicating with students both before and after the occurrence of emotional learning events.

Leveraging on a Third Learning Space: Informal and Hybrid Learning

As a way to transcend problematic dichotomies such as theory versus practice or campus-based versus work-based learning, the term 'third space' has been proposed in order to conceptualize a hybrid learning space where different kinds of learning are brought together (Gutiérrez et al. 1999; Zeichner 2010). Third space-based learning can thus refer to an amalgam between formal education and non-formal learning. CSE is an example in point of such a third space-based learning environment. While it can be argued that hybridized informal learning almost always occurs to a certain extent, the CSE case shows how assessment configured in line with Fig. 2.1 can contribute to making such a third space of learning more explicit. Given that assessment and learning are largely inseparable (Higgs 2014), assessment can play a key role in leveraging third space-based learning. Assessment design could strengthen the impact of third space learning by forcing students to both experience and get the most out of emotionally charged learning experiences. Examples of such formalized assessment practice at CSE include structures for group development talks, dedicated office space, the e-assessment platform LoopMe and mandatory shareholder agreements. A carefully designed 'third space' assessment strategy composed of such contracts, rules of engagement, boundaries, norms and physical as well as virtual reflective spaces could thus be critical for advancing experiential education.

Implications

Both educators and scholars in experiential education can now consider adhering to the separation proposed here between assessing learning and assessing value. This could help clarify the 'rules of engagement' between key actors collaborating to deliver experiential education. It could also facilitate understanding of varying motivations of different key actors, helping in the articulation of collaboration agreements and in the resolution of conflicts. The proposed assessment model could be considered by

educators who are in need for guidance when designing assessment structures for experiential education. It could also serve as inspiration for future scholarly work in assessment of experiential education. Educators and scholars now need to test the proposition put forward here that the assessment model in Fig. 2.1 is useful beyond VCPs.

Given the stipulated key importance of external stakeholders having something to value when engaging in experiential education such as CSE, a stronger emphasis on students learning through creating value for others can be viewed as a necessary focus for experiential educators, both within entrepreneurship and in other subject areas. If experiential educators are to succeed in engaging external stakeholders in their courses and programmes, they will arguably need to let their students create some kind of value for such stakeholders that can be appreciated and assessed. The value does not need to be economic as in the CSE case, but can be social, relational, emotional, ecological or in line with any other valuation framework (cf. Stark 2011). The new assessment method articulated here, leaning on emotion-laden activities, can also be applied in such endeavours. Applications of these propositions in practice, beyond the CSE case where the methods were articulated, could then be of interest to study for scholars from a number of different scholarly fields.

The model in Fig. 2.1 implies that assessing activity is not enough in experiential education. According to the model, each of the key emotion-laden activities needs to be coupled with timely reflection in order for students to learn the competencies educators are aiming towards. Emotion-laden activities also need to be specified in distilled ways and included in a task-based micro-level assessment regime, preferably managed through an e-assessment tool such as LoopMe. Experiential education scholars also need to build a scientific base around which emotion-laden activities are the most relevant ones in any given kind of experiential education (Lackéus 2017a). Scholars cannot settle with assuming that those key emotion-laden activities that are used at CSE are apposite also for other subject areas.

Given that this chapter has articulated a number of ways in which experiential education can be assessed and managed more clearly and easily, it is the hope of the authors that future work along the implications articulated here could lead to experiential education being more common

in educational institutions than at present. The strong impact on student learning and identity construction seen in the CSE case indeed makes developing such 'third space' learning environments a worthwhile endeavour.

References

Adams, N. (2016). *Does an undergraduate venture creation programme in a University Achieve its Objectives?* Paper presented at the Proceedings of The 11th European Conference on Innovation and Entrepreneurship 15–16 September 2016.

Åstebro, T., Bazzazian, N., & Braguinsky, S. (2012). Startups by recent university graduates and their faculty: Implications for university entrepreneurship policy. *Research Policy, 41*(4), 663–677. https://doi.org/10.1016/j.respol.2012.01.004.

Bacigalupo, M., Kampylis, P., McCallum, E., & Punie, Y. (2016). *Promoting the entrepreneurship competence of young adults in Europe: Towards a self-assessment tool.* Paper presented at the Proceedings of ICERI2016 Conference, 14–16 November 2016, Seville, Spain.

Barr, S. H., Baker, T., & Markham, S. K. (2009). Bridging the valley of death: Lessons learned from 14 years of commercialization of technology education. *Academy of Management Learning & Education, 8*(3), 370–388.

Berggren, E. (2011). The entrepreneurial university's influence on commercialisation of academic research – The illustrative case of Chalmers University of Technology. *International Journal of Entrepreneurship and Small Business, 12*(4), 429–444.

Biggs, J. B., & Tang, C. (2011). *Teaching for quality learning at university: What the student does* (4th ed.). Maidenhead: McGraw-Hill Education.

Black, P., & Wiliam, D. (1998). Assessment and classroom learning. *Assessment in Education: Principles, Policy & Practice, 5*(1), 7–74.

Blenker, P., Frederiksen, S. H., Korsgaard, S., Muller, S., Neergaard, H., & Thrane, C. (2012). Entrepreneurship as everyday practice: Towards a personalized pedagogy of enterprise education. *Industry and Higher Education, 26*(6), 417–430.

Boekaerts, M. (2010). The crucial role of motivation and emotion in classroom learning. In H. Dumont, D. Istance, & F. Benavides (Eds.), *The nature of learning* (pp. 91–111). Paris: OECD Publishing.

Bond, J. B., Evans, L., & Ellis, A. K. (2011). Reflective assessment. *Principal Leadership, 11*(6), 32–34.

Boyle, A., & Hutchison, D. (2009). Sophisticated tasks in e-assessment: What are they and what are their benefits? *Assessment & Evaluation in Higher Education, 34*(3), 305–319.

Bozward, D., & Rogers-Draycott, M. C. (2017). *Value creation programmes: Lessons from an early stage implementation*. In ISBE Conference 2017, 8–9 November 2017, Belfast.

Cope, J. (2005). Toward a dynamic learning perspective of entrepreneurship. *Entrepreneurship Theory and Practice, 29*(4), 373–397. https://doi.org/10.1111/j.1540-6520.2005.00090.x.

Darling-Hammond, L. (1994). Performance-based assessment and educational equity. *Harvard Educational Review, 64*(1), 5–31.

Deacon, J., & Harris, J. (2011). A longitudinal reflection of blended/reflexive enterprise and entrepreneurial education. *Reflective Practice, 12*(5), 599–613.

Dirkx, J. M. (2001). The power of feelings: Emotion, imagination, and the construction of meaning in adult learning. *New Directions for Adult and Continuing Education, 2001*(89), 63–72.

Dochy, F., Segers, M., & Sluijsmans, D. (1999). The use of self-, peer and co-assessment in higher education: A review. *Studies in Higher Education, 24*(3), 331–350.

Eisenhardt, K. M., & Graebner, M. (2007). Theory building from cases: Opportunities and challenges. *Academy of Management Journal, 50*(1), 25–32.

Ellis, A. K. (2001). *Teaching, learning, and assessment together: The reflective classroom*. New York: Eye on Education.

Eyler, J. (2009). The power of experiential education. *Liberal Education, 95*(4), 24–31.

Ferns, S., & Comfort, J. (2014). Eportfolios as evidence of standards and outcomes in work-integrated learning. *Asia-Pacific Journal of Cooperative Education, 15*(3), 269–280.

Ferns, S., & Moore, K. (2012). Assessing student outcomes in fieldwork placements: An overview of current practice. *Asia-Pacific Journal of Cooperative Education, 13*(4), 207–224.

Finkle, T. A., & Deeds, D. (2001). Trends in the market for entrepreneurship faculty, 1989–1998. *Journal of Business Venturing, 16*(6), 613–630.

Gibbs, G. (1988). *Learning by doing: A guide to teaching and learning methods*. London: Further Education Unit Google Scholar.

Gosen, J., & Washbush, J. (2004). A review of scholarship on assessing experiential learning effectiveness. *Simulation & Gaming, 35*(2), 270–293.

Gutiérrez, K. D., Baquedano-López, P., & Tejeda, C. (1999). Rethinking diversity: Hybridity and hybrid language practices in the third space. *Mind, Culture, and Activity, 6*(4), 286–303.

Haines, G. H. (1988). The Ombudsman: Teaching entrepreneurship. *Interfaces, 18*(5), 23–30.

Henry, C. (2015). Entrepreneurship education evaluation: Revisiting storey to hunt for the heffalump. *Education+ Training, 57*(8/9), 816–833.

Henry, C., Hill, F., & Leitch, C. (2005a). Entrepreneurship education and training: Can entrepreneurship be taught? Part I. *Education + Training, 47*(2), 98–111.

Henry, C., Hill, F., & Leitch, C. (2005b). Entrepreneurship education and training: Can entrepreneurship be taught? Part II. *Education + Training, 47*(3), 158–169.

Higgs, J. (2014). Assessing the immeasurables of practice. *Asia-Pacific Journal of Cooperative Education, 15*(3), 253–267.

Human, S. E., Clark, T., & Baucus, M. S. (2005). Student online self-assessment: Structuring individual-level learning in a new venture creation course. *Journal of Management Education, 29*(1), 111–134.

Isaacs, T., Zara, C., Herbert, G., Coombs, S. J., & Smith, C. (2013). *Key concepts in educational assessment*. London: Sage Publications.

Jarvis, P. (2002). Practice-based and problem-based learning. In P. Jarvis (Ed.), *The theory and practice of teaching* (pp. 123–131). London: Kogan Page Ltd.

Jarvis, P. (2006). *Towards a comprehensive theory of human learning* (Vol. 1). New York: Routledge.

Johannisson, B. (2016). Limits to and prospects of entrepreneurship education in the academic context. *Entrepreneurship & Regional Development, 28*(5/6), 403–423.

Jones, C. (2006). Enterprise education: Revisiting Whitehead to satisfy Gibbs. *Education+ Training, 48*(5), 356–367.

Jones, C., & English, J. (2004). A contemporary approach to entrepreneurship education. *Education + Training, 46*(8/9), 416–423.

Jordan, S., & Mitchell, T. (2009). e-Assessment for learning? The potential of short-answer free-text questions with tailored feedback. *British Journal of Educational Technology, 40*(2), 371–385.

Kayes, D. C. (2002). Experiential learning and its critics: Preserving the role of experience in management learning and education. *Academy of Management Learning & Education, 1*(2), 137–149.

Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development*. Englewood Cliffs: Prentice Hall.

Krueger, N. F. (2009). The microfoundations of entrepreneurial learning and… education: The experiential essence of entrepreneurial cognition. In *Handbook of university-wide entrepreneurship education* (pp. 35–59). Cheltenham: Edward Elgar Publishing.

Kuratko, D. F. (2005). The emergence of entrepreneurship education: Development, trends, and challenges. *Entrepreneurship Theory and Practice, 29*(5), 577–597.

Lackéus, M. (2013). *Developing entrepreneurial competencies – An action-based approach and classification in education* (Licentiate Thesis). Gothenburg: Chalmers University of Technology.

Lackéus, M. (2014). An emotion based approach to assessing entrepreneurial education. *International Journal of Management Education, 12*(3), 374–396.

Lackéus, M. (2016). *Value creation as educational practice – Towards a new educational philosophy grounded in entrepreneurship?* (PhD Kappa). Gothenburg: Chalmers University of Technology.

Lackéus, M. (2017a). *Can scientific social media disrupt entrepreneurship research?* Paper presented at the Internal working paper Chalmers University of Technology, Sweden.

Lackéus, M. (2017b). Does entrepreneurial education trigger more or less neoliberalism in education? *Education + Training, 59*(6), 635–650.

Lackéus, M., & Williams Middleton, K. (2015). Venture creation programs: Bridging entrepreneurship education and technology transfer. *Education and Training, 57*(1), 48–73.

Lackéus, M., Lundqvist, M., & Williams Middleton, K. (2016). Bridging the traditional – Progressive education rift through entrepreneurship. *International Journal of Entrepreneurial Behavior & Research, 22*(6), 777–803.

Lans, T., Biemans, H., & Baggen, Y. (2015). *Opportunity competence contributes to successfully leveraging ideas for entrepreneurship and innovativeness in enterprises*. Friedrichshafen: LLLight'in'Europe.

Lindholm Dahlstrand, Å., & Berggren, E. (2010). Linking innovation and entrepreneurship in higher education: A study of Swedish schools of entrepreneurship. In R. Oakey, A. Groen, G. Cook, & P. van der Sijde (Eds.), *New technology based firms in the new millennium – Funding: An enduring problem* (Vol. 8, pp. 35–50). Bingley: Emerald Group Publishing Ltd.

Lockyer, J., & Adams, N. (2014). *Venture creation programmes: Causation or effectuation?* Paper presented at the European Conference on Innovation and Entrepreneurship.

Lundqvist, M., & Williams Middleton, K. (2008). Sustainable wealth creation beyond shareholder value. In C. Wankel & J. A. F. Stoner (Eds.), *Innovative approaches to global sustainability* (pp. 39–62). New York: Palgrave Macmillan.

Martin, B. C., McNally, J. J., & Kay, M. J. (2013). Examining the formation of human capital in entrepreneurship: A meta-analysis of entrepreneurship education outcomes. *Journal of Business Venturing, 28*(2), 211–224.

McNamara, J. (2013). The challenge of assessing professional competence in work integrated learning. *Assessment & Evaluation in Higher Education, 38*(2), 183–197.

McQueen, D. H., & Wallmark, J. T. (1982). Spin-off companies from Chalmers University of Technology. *Technovation, 1*(4), 305–315.

Meyer, A. D., Aten, K., Krause, A. J., & Metzger, M. L. (2011). Creating a university technology commercialisation programme: Confronting conflicts between learning, discovery and commercialisation goals. *International Journal of Entrepreneurship and Innovation Management, 13*(2), 179–198.

Mezirow, J. (1991). *Transformative dimensions of adult learning*. San Francisco: Jossey-Bass.

Minniti, M., & Bygrave, W. D. (2001). A dynamic model of entrepreneurial learning. *Entrepreneurship Theory and Practice, 25*(3), 5–16.

Molee, L. M., Henry, M. E., Sessa, V. I., & McKinney-Prupis, E. R. (2011). Assessing learning in service-learning courses through critical reflection. *Journal of Experiential Education, 33*(3), 239–257.

Moon, J. A. (2004). *A handbook of reflective and experiential learning: Theory and practice*. London: Psychology Press.

Morland, L., & Thompson, J. L. (2016). New venture creation as a learning agenda: Experiences, reflections and implications from running a venture creation programme. In M. H. Morris & E. Liguori (Eds.), *Annals of Entrepreneurship Education and Pedagogy–2016* (pp. 200–225). Cheltenham: Edward Elgar Publishing.

Neck, H. M., Greene, P. G., & Brush, C. G. (2014). *Teaching entrepreneurship: A practice-based approach*. Cheltenham: Edward Elgar Publishing.

Ollila, S., & Williams Middleton, K. (2011). The venture creation approach: Integrating entrepreneurial education and incubation at the university. *International Journal of Entrepreneurship and Innovation Management, 13*(2), 161–178.

Pittaway, L., & Edwards, C. (2012). Assessment: Examining practice in entrepreneurship education. *Education+ Training, 54*(8/9), 778–800.

Pittaway, L., Hannon, P., Gibb, A., & Thompson, J. (2009). Assessment practice in enterprise education. *International Journal of Entrepreneurial Behaviour & Research, 15*(1), 71–93.

Politis, D. (2005). The process of entrepreneurial learning: A conceptual framework. *Entrepreneurship Theory and Practice, 29*(4), 399–424. https://doi.org/10.1111/j.1540-6520.2005.00091.x.

Postle, D. (1993). Putting the heart back into learning. In D. Boud, R. Cohen, & D. Walker (Eds.), *Using experience for learning* (pp. 33–45). London: Society for Research into Higher Education and Open University Press.

Rasmussen, E., & Sørheim, R. (2006). Action-based entrepreneurship education. *Technovation, 26*(2), 185–194.

Rasmussen, E., Moen, Ø., & Gulbrandsen, M. (2006). Initiatives to promote commercialization of university knowledge. *Technovation, 26*, 518–533.

Roberts, J. W. (2015). *Experiential education in the college context: What it is, how it works, and why it matters*. New York: Routledge.

Ruskovaara, E., & Pihkala, T. (2016). *Review, comparison and evaluation of seven assessment tools*. European Entrepreneurship Education NETwork.

Ruskovaara, E., Pihkala, T., Seikkula-Leino, J., & Rytkölä, T. (2015). Creating a measurement tool for entrepreneurship education: A participatory development approach. In A. Fayolle, P. Kyrö, & F. Liñan (Eds.), *Developing, shaping and growing entrepreneurship* (pp. 40–57). Cheltenham: Edward Elgar.

Schein, E. H. (1993). Legitimating clinical research in the study of organizational culture. *Journal of Counseling and Development, 71*(6), 703–708.

Stark, D. (2011). *The sense of dissonance: Accounts of worth in economic life*. Princeton: Princeton University Press.

Stödberg, U. (2012). A research review of e-assessment. *Assessment & Evaluation in Higher Education, 37*(5), 591–604.

Streeter, D. H., Kher, R., & Jaquette, J. P., Jr. (2011). University-wide trends in entrepreneurship education and the rankings: A dilemma. *Journal of Entrepreneurship Education, 14*, 75.

Thursby, M. C., Fuller, A. W., & Thursby, J. (2009). An integrated approach to educating professionals for careers in innovation. *Academy of Management Learning & Education, 8*(3), 389–405.

Warhuus, J. P., & Basaiawmoit, R. V. (2014). Entrepreneurship education at Nordic technical higher education institutions: Comparing and contrasting program designs and content. *The International Journal of Management Education, 12*(3), 317–332.

Williams Middleton, K. (2013). Becoming entrepreneurial: Gaining legitimacy in the nascent phase. *International Journal of Entrepreneurial Behaviour & Research, 19*(4), 404–424. https://doi.org/10.1108/IJEBR-04-2012-0049.

Williams Middleton, K., & Donnellon, A. (2014). Personalizing entrepreneurial learning: A pedagogy for facilitating the know why. *Entrepreneurship Research Journal, 4*(2), 167–204.

Yin, R. K. (2008). *Case study research: Design and methods*. London: Sage Publications.

Yorke, M. (2011). Work-engaged learning: Towards a paradigm shift in assessment. *Quality in Higher Education, 17*(1), 117–130.

Zeichner, K. (2010). Rethinking the connections between campus courses and field experiences in college-and university-based teacher education. *Journal of teacher education, 61*(1–2), 89–99.

3

Enterprise Simulation Gaming: Effective Practices for Assessing Student Learning with SimVenture Classic and VentureBlocks

Naveed Yasin and Khalid Hafeez

Introduction

Experts such as Haase and Lautenschläger (2011), Lautenschläger and Haase (2011), and Powell (2013) are still questioning the purpose of entrepreneurship education, as well as registering their discontent regarding the teaching pedagogy that is employed in most Higher Education Institutions (HEIs). There are others who debate whether the purpose of such education is about teaching how to become an entrepreneur or about teaching entrepreneurship as a subject or discipline (Wilson and McKiernan 2011; Wilson and Thomas 2012).

Generally, entrepreneurship is considered a business-related subject matter and, therefore, in most universities entrepreneurship is taught in business schools (Gibb 2008; Penaluna et al. 2012). Moreover, for most

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universities, entrepreneurship centres are located under the umbrella of business schools (Morris and Kuratko 2014; Sá and Kretz 2015). However, there is an increasing concern among professionals that business education curricula is not fit for purpose for delivering entrepreneurship education. According to Packham et al. (2010), in many instances, rather than preparing students to become entrepreneurs, the curricula actually discourage entrepreneurial attributes and dissuade aspiring individuals from considering entrepreneurship as an active practice (Schlesinger and Kiefer 2012) and career path (Oosterbeek et al. 2010; Sardeshmukh and Smith-Nelson 2011).

On the other hand, there is a glimmer of hope as Alexandre-Leclair (2014) recognises that today business education is endeavouring to resuscitate its purpose, from being a 'career factory' where students go to learn to boost their chances of landing a job to solving societal problems by "putting the needs of the society at the center of its mission" (Alexandre-Leclair 2014). Moylan et al. (2016) suggest that there seems to be an agreement that the focus of entrepreneurship education is about giving an opportunity to students to experience entrepreneurship through undertaking a 'doing' approach (experiential learning), which allows them to learn from 'trial and error', making decisions, and internalising the process of learning. Such approaches are difficult to adopt in the traditional curriculum offered by business schools.

What Is Experiential Learning?

Mughal and Zafar (2011, p. 28) define experiential learning simply as a process of "making meaning from direct experience". Experiential learning is an outcome of a process of doing and experiencing that can include both classroom-based methods and outside of class (such as field-based) experiences (Wurdinger 2005). The most common classroom-based methods include collaborative learning, cooperative learning, project-based and problem-based learning (see, e.g., Biswas-Diener and Patterson 2013; Holland and Lenders 2016; Mughal and Zafar 2011; Muro and Jeffery 2008; Piercy et al. 2012; Smith and Knapp 2011). On the other hand, the field-based experience is acquired from placement and internship opportunities (Itin 1999).

Scholars maintain that education and learning are two different things. In this context, although experiential education and experiential learning are interrelated concepts, Roberts (2016) and McGoldrick and Ziegert (2012) distinguish a difference between the two. In the words of Roberts (2016, p. 24), just because someone has learnt through experience does not mean that they have done so through experiential education; learning and education are not synonyms. Mughal and Zafar (2011, p. 28) note that "experiential learning has always been mistakenly used interchangeably with experiential education". For McGoldrick and Ziegert (2012, p. 79), experiential education is "a pedagogic practice that supports learning through experience". However, the related learning process that goes hand in hand with experiential education is experiential learning.

The most notable work on experiential learning in higher education stems from the work of Kolb (1984). In his recent article, Kolb (2014, p. 67) defines experiential learning as "the process whereby knowledge is created through the transformation of experience: knowledge results from the combination of grasping experience and transforming it". Kolb asserts four key areas that embody the experiential learning process. Firstly, learning is a method of adoption rather than producing the content of knowledge. Secondly, knowledge is a dynamic and interactive process that is created, consumed, and recreated as opposed to being an entity to be acquired and transmitted. Thirdly, during the process of creation and recreation, the learning process should be able to generate and transform experiences both as an entity (in an objective form) and emotions (subjective form). Fourthly, to comprehend learning, we must realise the nature of knowledge.

We concur with Mughal and Zafar (2011, p. 28) that "experiential learning plays a supporting role in experiential education which facilitates the process of knowledge creation, sense-making and knowledge transfer in teaching, training and development". Based on the current trends in higher education, especially with regard to entrepreneurship education, it transpires that educators are making efforts to increase the 'learning from experience' aspect by introducing diverse forms of experience-based education. "It offers the foundation for an approach to education and learning as a lifelong process that is soundly based in intellectual traditions of social psychology, philosophy, and cognitive psychology" (Kolb 1984,

p. 03). In this context, the role of experiential educators becomes crucial in creating a suitable learning environment that can pose a real business problem, facilitate appropriate support to safeguard learners' physical and emotional needs, and enable them to reflect on their learning.

Enterprise and Entrepreneurial Skills Development Through Business Simulation

Universities are adopting new approaches to teach entrepreneurship, for example, by facilitating activities where students visit new ventures and undertake business plan competitions, elevator pitch competitions that are judged by 'dragons' or business angels, placements and internships, and business consultancies through working with businesses under supervision (Vanevenhoven and Drago 2015). For teaching entrepreneurship, the 'business plan' approach remains one of the key activities or tools used in entrepreneurship education (Alexander and Hjortso 2013; Ferreira et al. 2017; Gartner and Vesper 1994; Wilson 2012). However, Fayolle and Klandt (2006) and Gibb (2008) argue that there is a need to move away from the traditional focus on entrepreneurship education that includes writing business plans. In their views, there is a strong likelihood that an individual may not experience the actual 'feel' of what it is like to be an entrepreneur at the end of the process (Gibb 2008, 2011). Weber and Funke (2014, p. 180) also support this argument by saying that entrepreneurship education consisting of "merely writing business plans does not imply an improvement of the different facets of entrepreneurship competence". Karlsson and Honig (2009) point out that when participating in a business plan competition, their students compete "for cash awards, access to potential investors, high product and service visibility, and network with other interested parties, or all the above".

Educationalists have identified that having empathy with the entrepreneurs' 'life world' should be a key learning objective of entrepreneurship education (see, e.g., Gibb et al. 2014; Pittaway et al. 2009; Urban 2010). This means making learners (students) feel and experience living with "uncertainty and complexity; work under pressure; coping with loneliness;

holistic management; no sell – no income; no cash in hand; learning by doing, copying, making things up, problem solving; managing interdependencies; working flexible and long hours" (Gibb et al. 2014).

There are other educators who have valued the presence of entrepreneurs or entrepreneurial role models in the form of 'resident entrepreneurs', who can assist learners and educators to understand their real-world experiences (Bolton and Thompson 2004; Brand et al. 2007). Also, bringing in practitioners helps students network with experts and can also help mentor students (Bolton and Thompson 2004). Researchers such as Brand et al. (2007) and Westlund et al. (2014, p. 60) emphasise that interacting with entrepreneurial role models can allow learners to be aware of the real-world life of an entrepreneur, listen to their trials and tribulations, learn about emotional and analytical behaviours, and above all, develop a positive attitude towards entrepreneurship in general. Wilson (2011, p. 13) goes to the extent of saying, "no entrepreneurship program can succeed without close interaction with entrepreneurs", which underscores the importance of obtaining the support of entrepreneurs as part of the learning and teaching pedagogy in enterprise and entrepreneurship education.

However, Wilson (2011, p. 13) identifies that most successful entrepreneurship courses include activities such as student-run business using real money, field trips to new ventures, simulations and games, interactive teamwork, and group activities. Schindehutte and Morris (2016) advocate for an 'experience portfolio concept'—the mix of experiences students receive within an entrepreneurship programme. According to Wilson (2011), "engaging learners in relevant experiential activities is a significant part of successful entrepreneurship education".

Simulation-based learning consists of many forms such as written case studies, technical and non-technical role plays, board games, and computer simulations using dedicated software packages (Breckwoldt et al. 2014; Mayer et al. 2012). Non-computer-based simulation is recognised as low-fidelity simulation, whereas developing and solving complex problems and making managerial decisions using complex computer models or customised software are recognised as high-fidelity simulations. Simulation-based learning provides a safe environment that allows students to engage in trial and error and learn from making mistakes

while experiencing any particular element. In some professions, for example, training as an airline pilot in a flight simulator, or training to conduct minimally invasive surgery remotely, could involve learning a complex task that mimics the real-life situation closely. Breckwoldt et al. (2014, pp. 673–674), therefore, suggest that simulated learning is a specialised form of learner-centric experiential learning that brings together the various dimensions of learning, including social, psychomotor, affective, cognitive, and motivational.

According to Deshpande and Huang (2011, p. 22), computer simulation in its simplest definition is a "representation of reality or some known process/phenomenon". A simulation is usually an analytical or algorithmic tool within a scope and constraints that exhibit the cause-effect behaviour of a subjective or objective system. Simulations allow 'what-if' analyses to choose from a range of alternatives (Hafeez et al. 1996) that may or may not be practicable in the real world, such as conducting short-, medium-, and long-term scenarios involving extreme 'risks'. In a business sense, it may involve simulating the impact of the failure of one part of the business on the whole supply chain, which may not be feasible in reality. Therefore, it allows for a 'practice in safety' approach to trial and tests the rough-cut solutions with a view to select optimal decisions within the required constraints (Botelho et al. 2016). On the other hand, the purpose of a simulation game is to capture the attention of the learner by introducing aspects of winning while dealing with contention and conflict against a scoring metric. The innate desire of a player to improve the score encourages them to become increasingly engaged in the learning process (the simulation game).

Lu et al. (2014, p. 220) argue that computer simulation experiential learning in business and management education does "engage students in solving high, fidelity, complex, dynamic management problems". Other key benefits of this type of learning are that it creates a cooperative, collaborative, competitive, repetitive, social, cost-effective, and fun learning environment. This also allows students to 'immerse' themselves in a business situation and cope with the pressure of awaiting the outcome of a management decision if the simulation is running for a longer period of time (e.g., using Bloomberg's trading floor simulator to review the performance of a financial portfolio in the stock market). Gibb and

Hannon (2006) argue that 'immersion' is a key learning pedagogy in entrepreneurial education, where an entrepreneur must experience the emotions of frustration and joy that come with the success or failure of a business venture; business simulation can provide such an environment in a limited way. Also, the students and the instructor can gauge the 'impact of learning', for example, by running a simulation exercise before learning a topic in the classroom and then repeating the simulation once they have grasped the theoretical concepts well to assess the content of learning.

Computer simulation can also be used as a problem-based learning tool where students are tasked to run a company and generate a profit. Here, students can develop domain knowledge of different functions of a company, and theoretical aspects such as learning about marketing mix, market segmentation, inventory control, and capacity planning, which are available in some simulation programmes such as SimVenture. There are a number of studies where researchers have implemented and assessed the use of the SimVenture game in entrepreneurship education and found that the game enables learners to develop competencies related to entrepreneurship (Williams 2015). For example, in the simulation, students can use company resources such as money, staff time, and expertise to achieve specific business goals such as to meet target sales, increase productivity, reduce staff numbers, or introduce an innovation or new product in the market.

By running the simulation, students learn how company performance varies over time. They are able to tweak their business strategy by changing business decision parameters. Good software packages have a user-friendly user interface that looks similar to flight simulator, where different decision factors are represented as analogue dials on the screen. (In a flight simulator these dials can refer to, e.g., height of aeroplane, ground speed, head- and tailwind, distance to airport and amount of fuel, engine speed, etc., and the trainee pilots learn to safely take-off and land under changing conditions.) Consequently, within matter of hours students have an opportunity to learn the outcome of their decisions (tactics or strategies) on company financial (or reputational) performance that would otherwise require years of "'real time' working experience" (Lu et al. 2014, p. 220).

Computer-based business simulation gaming is usually conducted in a team environment. This requires students or professionals (when simulation is employed in a real company) to undertake intensive discussions and debates to provide their rationale and viewpoint for arguing their tactic or strategy. This brings to the fore various emotional states including "engagement, excitement, challenge, frustration, conflict, joy, consternation, surprise, disappointment, pride, and satisfaction" (Lu et al. 2014, p. 221).

Undergoing and experiencing these human emotions are crucial in the personal and professional development of students, as this prepares them for a real scenario in their professional life. Another trait of an entrepreneur and business professional is to undertake decisions while under pressure, when the business simulation is played in a time-bound game competition. This helps to build 'the resilience' and 'persistence' aspects of the entrepreneurial attribute. If the business simulation is played as a management game amongst the team, and each team member is required to undertake a management role such as, financial director, or a marketer, or a logistics director, the business simulation as a pedagogy will enable the development of leadership and team working skills of the individuals. Another way of playing such games is to be mentored by an entrepreneur as it allows the learning of various entrepreneurship competencies and processes.

Case Study A: SimVenture Classic and Learning Points

SimVenture Classic is a Windows-based software that was launched in October 2006 by UK-based Venture Simulations Limited. SimVenture has rapidly grown to become a multi-award-winning simulation software programme and its classic simulation is licensed in over 40 countries throughout the world and has been implemented widely in the education sector and corporate talent development and training programmes. The UK is the biggest territory with over 85 HEIs holding licences and is followed by Mexico with over 35 HEIs holding licences. The most common use of the simulation experiences is noted in the undergraduate and

postgraduate degree programmes in enterprise and entrepreneurship, general business management disciplines, and employability.

SimVenture is a powerful learning tool that provides the user with engagement, sustainable learning, and an unparalleled depth of user experience. The gaming function in this software programme allows the user to start, manage, and grow a microcomputer company. The business simulator demonstrates the interconnected relationship of a start-up business as users are required to juggle money, time, skills, stress, and tiredness within the various functions of the enterprise such as finance, marketing, supply chain/operations, and management.

Unlike the more traditional training methods of business planning, this simulation software has proven to be a popular choice for British universities due to its ability to sustain engagement and provide authentic learning by reinforcing how users should think about business. Academics in the UK have implemented SimVenture Classic in a variety of ways in diverse Business and Management programmes ranking from Level 4 to Level 7 (in the UK education system, Level 4 refers to year 1 of the university bachelor degree programme and Level 7 refers to postgraduate or masters level qualification). Education instructors and academics may choose to implement this simulation with students individually or in teams for formative, summative, or diagnostic assessment.

SimVenture Classic may also be used as a diagnostic tool for graduates who have completed their degrees and are seeking to start up their own businesses. In such situations, allowing the students to engage with the simulations individually allows them to self-identify and diagnose areas of strengths and weaknesses in each functional area of gameplay. Also, the experience of engaging with this simulation can provide the user with a greater recognition and awareness of the appropriateness of their career choice.

Effective Practice 1: SimVenture for Individual Students and a Reflective Essay

Instructors may choose to implement SimVenture for a summative assessment where students are required to produce a reflective account of their decision making. This practice can also be used as a diagnostic tool for

students to understand the complexity of managing a small business and how decisions within each functional area within an enterprise are interconnected and the impact that decisions within one functional area have on the overall health of the enterprise.

The simulation allows the instructor to be flexible in the way in which 'success' will be achieved by the user. To aid student learning within this practice, it is essential that relevant training sessions in reflective practice are delivered to the students prior to engaging the students in the simulation.

Effective Practice 2: Board Meeting or Group Presentation Approach

Instructors can divide their cohort into groups of four to five students and assign responsibility (directorships) to each student and allocate the responsibility of managing the team to one member of the group. Students are required to run 12 months of simulated gameplay, which will be summatively assessed at the end of the assessment period by a board meeting or a group presentation. The instructor is advised to conduct two to three reviews as formative assessments to ensure that students are planning before implementing decisions within the simulation.

For higher levels of academic programmes, particularly at the postgraduate level (Level 7), the instructor may choose to consider the amount of net profit generated by the end of the simulation, depth of reflection, the rationale for decision making, and how decisions were undertaken by the users. The instructor may also require students to relate their decision making to relevant theoretical concepts within the taught content of the module.

Effective Practice 3: Method of Delivery and Transition from Lecturer to Coach/Mentor

To provide users with a successful experience and depth of learning within SimVenture, it is necessary that the instructor provides students with a series of training sessions as a demonstration on the simulation prior to

conducting a summative assessment. For academic modules that are delivered over one to two semesters, it is advised that instructors should start by introducing each component (functional areas), relating each area to the content of their learning (e.g., marketing, finance, operations and supply chain) and illustrating the interrelationships between the areas that may otherwise have been treated as different academic disciplines. This would prepare students to recognise the impact their decision making will have on the overall performance of the company during the simulation.

As the simulation allows instructors to facilitate learning, they should adopt a coaching and/or mentoring approach by supporting and guiding learners on their current situation within the simulation whilst also allowing students to experience failures and challenges within the gameplay. The instructor should provide students with independence and accountability for them to self-identify their reasons for success and failures in each trading simulated month of gameplay.

Instructors can benefit from undertaking relevant training in coaching and mentoring styles to inform their teaching and learning pedagogy when using an experiential approach to teaching and learning. Furthermore, it is essential that each instructor who is assigned to deliver the module and seminars ensures they actively approach students by placing the student at the heart of their own learning experience.

Case Study B: VentureBlocks and Learning Points

VentureBlocks is a US-based online business simulation game that teaches students how to interview customers and uncover consumer needs. VentureBlocks was created by Professor Heidi Neck (Professor of Entrepreneurship at Babson College) and Mr Anton Yakushin (a former student of entrepreneurship at Babson College). The simulation has been developed as a powerful experiential learning and teaching tool that enables students to learn specific entrepreneurial skills such as needs identification and customer discovery in a safe and fun environment with the purpose of preparing students for the real world of entrepreneurship.

VentureBlocks is used as a learning and teaching tool for experiential learning in the entrepreneurship discipline in US-based HEIs. Although the simulation can be implemented at any academic level, it is most suitable for the first year of an undergraduate degree in the USA (four-year programme) and for second- and third-year students in the UK.

Instead of diving into any random business idea, the simulation allows students to talk to virtual customers, understand their needs, and then develop a business idea. Students explore a new and unfamiliar market by interviewing potential customers through gameplay, thus allowing them to build insights and create business opportunities that meet customer needs. This tool can be used flexibly for formative, summative, or diagnostic assessment on various types of entrepreneurship modules such as introduction to entrepreneurship, entrepreneurial marketing, and entrepreneurship theory and practice. However, as the simulation has a qualitative focus, it may also be integrated within a research methods module to teach students about interviewing techniques.

VentureBlocks makes it easy for instructors to measure student learning through analytics, as well as student reflections captured during the simulation. During gameplay, users gain XP (experience points) for asking potential customers good, open-ended questions and, also, for spotting and 'trashing' bad questions. Users receive automated feedback on why a question should have been asked or trashed if they make any mistakes or miss opportunities while playing. The simulation involves various missions and levels of complexity to expose users to the full customer interview process, from approaching potential customers to gaining insights.

The average duration of simulated gameplay can range from 45 minutes to an hour. Instructors must ensure students have reliable access to the internet, are equipped with headphones for in-class gameplay, and must ensure the simulation is operating on laptops or desktops (tablet/smartphone compatibility is limited at present).

Effective Practice 1: Relating Theoretical Concepts to the Simulation

The instructor should encourage students to relate the purpose of the simulation to the academic content of the module. The student should be able to relate the importance of needs identification and customer discovery to

modern entrepreneurship concepts such as effectuation theory, business-model canvas, lean thinking, rapid prototyping, design thinking, feasibility, and desirability concepts. This would enable the student to understand the purpose and uses of effective communication and market research prior to developing their business proposition for the real world.

Effective Practice 2: No Instructional Interference During Gameplay

VentureBlocks has been designed for students to independently engage with learning and, therefore, it does not require the instructor to provide a demonstration or training on how to use the simulation. By facilitating the simulation as an independent learning activity, the instructor should not interfere with the students' individual learning experiences. It is recommended that the instructor should also display the leadership board within the class during the gameplay session, as this will enable students to engage in a competitive environment.

Effective Practice 3: The Debrief Activity

VentureBlocks provides a range of tools and resources for instructors to implement the simulation flexibly and to align this with the content of their modules. However, the co-founder of the software recommends that instructors include a debrief following the simulated gameplay. The debrief can be implemented as a 20-minute in-class activity where the instructor displays the data analytics and addresses concerns about incorrect answers. The instructor may also use PowerPoint resources containing illustrations of student data, methodology, and responses from students obtained from the instructor portal.

Some instructors may choose to use the student's gameplay score to formatively and/or summatively assess the student. However, using this approach may discourage students from learning as this may encourage a point scoring approach as students would reinitiate the gameplay multiple times to achieve a higher score for a higher grade. Alternatively, it is advised that instructors should use the reflective commentary gathered by the simulation programme throughout the gameplay for assessment.

VentureBlocks requires users to input their reflective responses during a successful or unsuccessful round of gameplay before proceeding to the next stage. This data is automatically available to the instructor in their VentureBlocks Portal.

Effective Practice 4: Post-Simulation and Debrief Activity

Following the debrief, the instructor is advised to divide their class into groups of three students to allow students to conduct peer interviews whilst being observed by the third member of the group using the rules of VentureBlocks—where students grade each other based on the quality and appropriateness of each question and answer. This type of peer observation technique will enable students to gain formative feedback and could also be used as part of their summative assessment. This activity should be followed by a roundtable discussion where all students in the class engage in a dialogue by relating and reflecting upon the simulation experience and learning from their assumptions about the real world of entrepreneurship.

Conclusion

Universities around the world are rapidly turning towards introducing and developing their provisions for entrepreneurship and enterprise education. However, there is very little understanding of how such teaching and learning can be aligned to the ways in which technology-based simulation gaming could be assessed for diagnostic, formative, and summative feedback. In this chapter, we have presented four effective practices for instructors who are proactively seeking new teaching approaches to engage students in the entrepreneurship discipline. We present experiential learning using business simulation software. It should be noted that there is a clear difference between simulation-based learning and e-learning, where e-learning usually involves the online delivery of the contents and possibly an element of interactivity using a web-based platform (Mahmoud and Hafeez 2013).

We have developed and presented these practices based on our own experiences of delivering these simulation games with our students and have also considered the recommendations and perspectives of other academics within the UK and USA. Furthermore, we have highlighted the important developments in experiential learning and enterprise and entrepreneurship education and systematically considered the study of two simulation games (viz., SimVenture Classic and VentureBlocks). As the perspectives outlined in this chapter are based on our own practical experiences as well as other academic practitioners, we do not claim any form of generalisability of our approaches and nor is this intended to be the purpose.

However, our purpose of presenting these perspectives is to engage in a dialogue with entrepreneurship academics globally to develop more creative and innovative approaches by sharing our practices that have proven to be successful in our academic institutions, respectively. Furthermore, we intend to continue developing our provision of using technology-based simulation as a powerful tool to engage students in enterprise and entrepreneurship studies through experiential and reflective learning approaches, improving their student experiences, and to also deliver enterprise education more effectively in a way that is more closely aligned with the real world of entrepreneurship as opposed to employing traditional methods of academic practices.

References

Alexander, I. K., & Hjortsø, C. N. (2013). Cultural considerations when designing entrepreneurial pedagogies. In *Education and learning issues in entrepreneurship workshop* (pp. 17–35). Athens: National and Kapodistrian University of Athens.

Alexandre-Leclair, L. (2014). Diversity as a motive for entrepreneurship? The case of gender, culture and ethnicity. *Journal of Innovation Economics & Management, 2*(14), 157–175.

Biswas-Diener, R., & Patterson, L. (2013). An experimental approach to teaching positive psychology to undergraduates. In A. C. Parks (Ed.), *Towards the establishment of best practices for applying positive psychology in higher education*. New York: Routledge.

Bolton, B. K., & Thompson, J. (2004). *Entrepreneurs: Talent, temperament, technique*. Burlington: Routledge.

Botelho, W. T., Marietto, M. D. G. B., Ferreira, J. C. D. M., & Pimentel, E. P. (2016). Kolb's experiential learning theory and Belhot's learning cycle guiding the use of computer simulation in engineering education: A pedagogical proposal to shift toward an experiential pedagogy. *Computer Applications in Engineering Education, 24*(1), 79–88.

Brand, M., Wakkee, I., & van der Veen, M. (2007). Teaching entrepreneurship to non-business students: Insights from two Dutch universities. In *Handbook of research in entrepreneurship education* (pp. 52–83). Cornwall: Edward Elgar Publishing.

Breckwoldt, J., Gruber, H., & Wittmann, A. (2014). Simulation learning. In S. Billett, C. Harteis, & H. Gruber (Eds.), *International handbook of research in professional and practice-based learning* (pp. 673–698). Dordrecht: Springer.

Deshpande, A. A., & Huang, S. H. (2011). Simulation games in engineering education: A state-of-the-art review. *Computer Applications in Engineering Education, 19*(3), 399–410.

Fayolle, A., & Klandt, H. (Eds.). (2006). *International entrepreneurship education: Issues and newness*. Cheltenham: Edward Elgar Publishing.

Ferreira, J. J., Fernandes, C. I., & Ratten, V. (2017). The influence of entrepreneurship education on entrepreneurial intentions. In M. Peris-Ortiz, J. Alonso Gómez, J. M. Merigó-Lindahl, & C. Rueda-Armengot (Eds.), *Entrepreneurial universities* (pp. 19–34). New York: Springer International Publishing.

Gartner, W. B., & Vesper, K. H. (1994). Experiments in entrepreneurship education: Successes and failures. *Journal of Business Venturing, 9*(3), 179–187.

Gibb, A. (2008). Entrepreneurship and enterprise education in schools and colleges: Insights from UK practice. *International Journal of Entrepreneurship Education, 6*(2), 48.

Gibb, A. (2011). Concepts into practice: Meeting the challenge of development of entrepreneurship educators around an innovative paradigm: The case of the International Entrepreneurship Educators' Programme (IEEP). *International Journal of Entrepreneurial Behavior & Research, 17*(2), 146–165.

Gibb, A., & Hannon, P. (2006). Towards the entrepreneurial university. *International Journal of Entrepreneurship Education, 4*(1), 73–110.

Gibb, A., Hannon, P., Price, A., & Robertson, I. (2014). A compendium of pedagogies for teaching entrepreneurship. *International entrepreneurship educators program, Coventry, United Kingdom*. http://ieeponline.com/wp-content/uploads/2013/11/Wider-reading

Haase, H., & Lautenschläger, A. (2011). The 'teachability dilemma' of entrepreneurship. *International Entrepreneurship and Management Journal, 7*(2), 145–162.

Hafeez, K., Griffiths, M., Griffiths, J., & Naim, M. M. (1996). Systems design of a two-echelon steel industry supply chain. *International Journal of Production Economics, 45*(1–3), 121–130.

Holland, P., & Lenders, R. (2016). Adult learning: From learning theory to parliamentary practice. *Public Administration, Governance and Globalization, 16*(1), 37–55.

Itin, C. M. (1999). Reasserting the philosophy of experiential education as a vehicle for change in the 21st century. *Journal of Experiential Education, 22*(2), 91–98.

Karlsson, T., & Honig, B. (2009). Judging a business by its cover: An institutional perspective on new ventures and the business plan. *Journal of Business Venturing, 24*(1), 27–45.

Kolb, D. (1984). *Experiential learning as the science of learning and development*. Englewood Cliffs: Prentice Hall.

Kolb, D. A. (2014). *Experiential learning: Experience as the source of learning and development*. Hertfordshire: FT press.

Lautenschläger, A., & Haase, H. (2011). The myth of entrepreneurship education: Seven arguments against teaching business creation at universities. *Journal of Entrepreneurship Education, 14*, 147–161.

Lu, J., Hallinger, P., & Showanasai, P. (2014). Simulation-based learning in management education: A longitudinal quasi-experimental evaluation of instructional effectiveness. *Journal of Management Development, 33*(3), 218–244.

Mahmoud, T., & Hafeez, K. (2013). Performance assessment of an e-learning software system for sustainability. *International Journal of Quality and Service Sciences, 5*(2), 208–229.

Mayer, I., Bekebrede, G., Harteveld, C., Warmelink, H., Zhou, Q., Ruijven, T., Lo, J., Kortmann, R., McGoldrick, K., & Ziegert, A. L. (2012). Let experience be the guide: Experiential education in economics. In G. M. Hoyt & K. McGoldrick (Eds.), *The international handbook of teaching and learning economics* (pp. 79–89). Northampton: Edward Elgar Press.

McGoldrick, K., & Ziegert, A. (2012). Let experience be the guide: Experiential education in economics. In G. M. Hoyt & K. McGoldrick (Eds.), *International handbook on teaching and learning economics* (pp. 78–88). London: Routledge.

Morris, M. H., & Kuratko, D. F. (2014). Building university 21st-century entrepreneurship programs that empower and transform. In S. Hoskinson &

D. F. Kutratko (Eds.), *Innovative pathways for University entrepreneurship in the 21st Century* (pp. 1–24). Bingley: Emerald Group Publishing Limited.

Moylan, T., Gallagher, N., & Heagney, C. (2016). Exploratory studies on the use of experiential learning in entrepreneurship education. *AISHE-J: The All Ireland Journal of Teaching & Learning in Higher Education, 8*(1), 25315–25323 (on-line).

Mughal, F., & Zafar, A. (2011). Experiential learning from a constructivist perspective: Reconceptualizing the Kolbian cycle. *International Journal of Learning and Development, 1*(2), 27–37.

Muro, M., & Jeffrey, P. (2008). A critical review of the theory and application of social learning in participatory natural resource management. *Journal of Environmental Planning and Management, 51*, 325–344.

Oosterbeek, H., Van Praag, M., & Ijsselstein, A. (2010). The impact of entrepreneurship education on entrepreneurship skills & motivation. *European Economic Review, 54*(3), 442–454.

Packham, G., Jones, P., Miller, C., Pickernell, D., & Thomas, B. (2010). Attitudes towards entrepreneurship education: A comparative analysis. *Education + Training, 52*(8/9), 568–586.

Penaluna, K., Penaluna, A., & Jones, C. (2012). The context of enterprise education: Insights into current practices. *Industry and Higher Education, 26*(3), 163–175.

Piercy, N., Brandon-Jones, A., Brandon-Jones, E., & Campbell, C. (2012). Examining the effectiveness of experiential teaching methods in small and large OM modules. *International Journal of Operations & Production Management, 32*(12), 1473–1492.

Pittaway, L., Missing, C., Hudson, N., & Maragh, D. (2009). Entrepreneurial learning through action: A case study of the six-squared program. *Action Learning: Research and Practice, 6*(3), 265–288.

Powell, B. C. (2013). Dilemmas in entrepreneurship pedagogy. *Journal of Entrepreneurship Education, 16*, 99–112.

Roberts, J. (2016). *Language teacher education*. London: Routledge.

Sá, C., & Kretz, A. (2015). *The entrepreneurship movement and the university*. New York: Springer.

Sardeshmukh, S. R., & Smith-Nelson, R. (2011). Educating for an entrepreneurial career: Developing opportunity recognition ability. *Australian Journal of Career Development, 20*(3), 47–55.

Schindehutte, M., & Morris, M. H. (2016). The experiential learning portfolio and entrepreneurship. In M. H. Morris & E. Liguori (Eds.), *Annals of entre-*

preneurship education and pedagogy (pp. 900–902). Cheltenham: Edward Elgar.

Schlesinger, L. A., & Kiefer, C. F. (2012). *Just start: Take action, embrace uncertainty, create the future*. Boston: Harvard Business Review Press.

Smith, T. E., & Knapp, C. E. (Eds.). (2011). *Sourcebook of experiential education: Key thinkers and their contributions*. London: Routledge.

Urban, B. (2010). *Frontiers in entrepreneurship*. London: Springer.

Vanevenhoven, J., & Drago, W. A. (2015). The structure and scope of entrepreneurship programs in higher education around the world. In D. Rae & C. L. Wang (Eds.), *Entrepreneurial learning: New perspectives in research, education and practice* (p. 117). New York: Routledge.

Weber, S., & Funke, S. (2014). A research-and evidence-based entrepreneurship education program at Ludwig-Maximilian University (LMU), Munich. In S. Weber et al. (Eds.), *Becoming an entrepreneur* (pp. 177–195). Taiwan: Sense Publishers.

Westlund, H., Andersson, M., & Karlsson, C. (2014). Creativity as an integral element of social capital and its role in economic performance. In R. Sternberg & G. Krauss (Eds.), *Handbook of research on entrepreneurship and creativity*. New York: Edward Elgar Publishing.

Williams, D. (2015). The impact of SimVenture on the development of entrepreneurial skills in management students. *Industry and Higher Education, 29*(5), 379–395.

Wilson, J. C. (2011). Service learning and the development of empathy in US college students. *Education and Training, 53*(*2/3*), 207–217.

Wilson, T. (2012). *Review of HE-business collaboration*. Retrieved from www.wilsonreview.co.uk/review/. 19 Dec 2017 at 13:08.

Wilson, D., & McKiernan, P. (2011). Global mimicry: Putting strategic choice back on the business school agenda. *British Journal of Management, 22*(3), 457–469.

Wilson, D. C., & Thomas, H. (2012). The legitimacy of the business of business schools: What's the future? *Journal of Management Development, 31*(4), 368–376.

Wurdinger, S. D. (2005). *Using experiential learning in the classroom: Practical ideas for all educators*. Maryland: R&L Education.

4

An Exploration of Experiential Education as a Catalyst for Future Entrepreneurs

Denis Hyams-Ssekasi and Elizabeth F. Caldwell

Introduction

Much emphasis is placed on an entrepreneurial education which entails hands-on experience of what it means to run a business (Lewis and Williams 1994). This chapter explores how courses can move away from the traditional and conventional means of imparting information about entrepreneurship to teaching that encourages students to engage in entrepreneurial activity through an experiential learning approach to curriculum design. The chapter details a case study where practical business experience is embedded in teaching and students test the waters of the business world in a safe learning environment which allows everyone to participate in the process. First hand practice is accorded to all students

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in terms of forming companies and experiencing the business life cycle. This necessitates business set-up, fund-raising, clear planning and product development, marketing, and trading. The chapter also highlights the business challenges that students experience in experiential education and discusses how educators might best address them.

Literature Review

Schuller (2001) views formal education as a vital component of entrepreneurship via providing credentials and authenticity to operational business ventures (Kim et al. 2006; Zott and Huy 2007) and an ability to increase and exploit business opportunities successfully (Van Praag and Van Stel 2013). Robinson and Sexton (1994) argue that education in entrepreneurship not only adds value to the individual's experience but also provides opportunities to develop business acumen. Timmons et al. (1985) concur and argue that entrepreneurial skills and behaviours can be developed and acquired through education. In contrast, Xie (2014) argues that there is no clear relationship between education and entrepreneurship and states that "education helps individuals gain knowledge and skills venture creation, but may not shape entrepreneurial behaviour" (p. 27).

According to QAA (2012), entrepreneurship education "equips students with the additional knowledge, attributes and capabilities required to apply these abilities in the context of setting up a new venture or business" (p. 2). Entrepreneurial experience has been found to have a positive impact on venture creation and provides opportunities to those who have no entrepreneurial experiences (Davidsson and Honig 2003; Delmar and Davidsson 2000). Entrepreneurial activity helps individuals develop specific capabilities (such as technical skills) acquired during employment and developed through interaction with others (Rae and Carswell 2001). Other commentators have also emphasised the importance of learning business practices from failure (Cope 2011).

Experiential learning theory (ELT) has been extremely influential in the study of entrepreneurship education (Cope 2005; Cope and Watts 2000). It has shown to improve students' engagement in business start-ups and has successfully been implemented in business education (Piercy

2013). In academic literature, experiential learning is perceived as a philosophy of education that has evolved from a number of education theorists over the years (Dewey 1938; Kolb 1984; Mezirow 2000; Revans 1976). However much of the experiential education is framed around Dewey's (1938) notion of learning through a succession of experiences. Experiential learning is a knowledge creation process that brings about an appreciation, and transformation, of lived experiences (Kolb and Kolb 2005). Knowles (1980) points out that if students are actively engaged in the learning process, learning and acquisition of knowledge will be maximised. Clark et al. (2010) perceive experiential learning as the proper learning tool for students to attain business-related skills esteemed by employers.

It is argued that entrepreneurial effectiveness can be accomplished through developing a business mindset, purposeful awareness, as well as an entrepreneurial attitude and capabilities (QAA 2012). In order to do this, educators must utilise a mix of theory and practice in such as way so that "practice should be underpinned by theory, so an ideal combination is to include learning both 'about' and 'for' within the curriculum" (QAA 2012, p. 8). A common method used for teaching business management is the lecture-centred approach which encourages passive listening and less interaction (Jones and English 2004). As such, incorporating and embedding opportunities for practice into the curriculum can be a challenge for both educators and indeed the structures and environment of higher education institutions. In order to achieve a more experiential and practical approach to entrepreneurship, educators must clearly design the teaching and learning methods to facilitate students to reflect both on their theoretical input and their practical experiences.

Background to the Case Study: The Enterprise and Entrepreneurship Module

The case study examined in this chapter was carried out in a modern university situated in the North of England. The institution has a high proportion of "non-traditional" students, including mature students returning to education and students from a range of social and economic backgrounds,

including many who completed their secondary education in a range of countries. As such, the students have different prior educational experiences, aspirations, and academic needs.

The enterprise and entrepreneurship module was developed purposively in order to inspire and to increase students' knowledge and skills about businesses (Zaman 2013). The entrepreneurship module started running in September 2012 but was originally designed for postgraduate students. In 2015, the module was introduced to second year business undergraduate students. However, initially it did not attract the attention of a significant number of undergraduate students due to the way it was taught. The students' annual module evaluation questionnaire indicated a lack of interest in the module, and as one student put it: "the lesson is rather dry, too theoretical and lacks practical activities". Consequently, it was clear that in order to encourage active participation and involvement in the learning process a module that incorporated a mix of theory and practice needed to be developed.

In 2016 the delivery of the module was redeveloped in a number of ways whilst still retaining the original module structure and assessment strategy. Firstly, a wider variety of experiences were incorporated into the timetabled classes, such as guest speakers and mentoring opportunities. Secondly, the students were given the opportunity to develop, market, and test a business idea at a trade fair on campus, before writing the business plan assignment for the module. During this process, the module leader gathered feedback from the 40 students studying the module in a series of hour-long focus groups. Further details of how the module was run and the responses from the students in the focus groups will be presented in the discussion that follows.

Timetabled Classes

The entrepreneurship module runs for one semester, 15 weeks in total, and is taught for three hours per week. The weekly class includes a one-hour lecture and two hours of practical activities. During the lecture hour, in addition to input from the module lecturer, a total of eight guest speakers from the business world came to impart their knowledge of specific

topics such as finance, information and communications technology (ICT), and marketing as well as to share their own experiences of how they started their companies from scratch and became successful. The guest speakers all had business background and were recruited via an internationally recognised enterprise education scheme.

The second part of the class involved practical activities, including mentoring sessions from a further four external mentors, who offered support on running the live project, which involved starting and running a business. All these sessions and activities were arranged, facilitated, and supported by the module lecturer. The impact on student learning was demonstrated during the focus groups, and one of the students commented "I have found the presence of the business guys in the classroom uplifting. They not only mentored us but gave us hands-on experiences which I thought were inspirational and informative" (F, 2).

Assessment

Summative assessment for the module comprised of two written assignments. The learning outcomes and assessment strategy remained in place from the original module structure and were not changed during the redesign of the delivery, as this would require a lengthy revalidation process. However, whilst the assessments themselves were not changed, the structure of the classes and activities was redeveloped to give the students more opportunities to experience entrepreneurship first hand.

The first assignment was a 2000-word individual essay, where students needed to appraise entrepreneurship as a concept and analyse its role in social and economic development. The second assignment was a 3000-word group business plan, where students had to present and justify their proposal for a business opportunity. In order to do this assignment, students were expected to test run their business. A real product or service was expected to be identified, advertised, marketed, and sold through a live trade fair organised on campus, with a view to generating revenue.

Despite the fact that the assessment strategy did not change, the students' overall experience of module was very different:

> It was different in terms of teaching and learning compared to other modules ... this module was providing students like myself the chance to experience what a business is like from a practical prospective rather than reading from books and journals ... even though there was a 3,000 word business plan the rest of this task was all practical. (H, 2)

Live Project and Trade Fair

The live project began 3 weeks after the start of module and ran for 11 weeks, with the trade fair occurring in the final week of teaching. During each of the 11 weeks of preparation, the students were mentored by the external business mentors. Each group was given £20 by the university as a start-up investment and groups were also encouraged to seek out other avenues of funding leading up to the trade fair. At the trade fair, the group that demonstrated the best product display and generated the most income was considered the winner.

All students had to be part of a group comprising of five students. Each group carried out a brainstorm exercise, where they had to agree on a business idea and how to execute it. The group meetings were built into the timetable and mentors met with each group to discuss the business idea, the marketing strategy, the funding, and how to trade. Mentors showed each group what they needed to do to attract customers, such as display the products appropriately and trade requirements.

The trade fair occurred on a Wednesday afternoon, when most students at the university do not have classes. The trade fair was allocated a designated place in a central location on campus. Each of the eight groups had opportunities to display what their businesses product or service entailed. Some of the products for the trade fair included perfumes, puppets, and handmade costumes, and one of the groups performed a service which was to deliver food from popular takeaway businesses to student accommodation in the local area.

The stalls took around four hours to set up and involved producing posters, creating price tags, or setting up display boards. Trading lasted for two hours, followed by judging by the mentors and module tutor about the best product display, highest takings, being most organised,

and most enterprising. Following the trade fair, students were given a week to finalise the business plan and to reflect on their experiences of live trading.

Group Work

Group work encourages students to work collaboratively and to implement what is learnt in order to complete a task (Colbeck et al. 2000; Longmore et al. 1996). Instructors frequently use group work as it provides learning experience for students that enables them to hone their interpersonal skills (Dyrud 2001). However, as Monk-Turner and Payne (2005, p. 169) point out, "better students may prefer to work on their own when faced with the option of working with students who do not contribute equally to the group". This was demonstrated in the current case study when students were initially allocated to their groups and the module tutor had to convince certain students to persevere despite their misgivings about working with fellow students who they perceived as "free riders" or "free-loafers" (Maranto and Gresham 1998).

The initial reaction of a minority notwithstanding, many of the students felt that they were enriched by the experience of working in a group, in terms of both making new friends and developing their team working skills:

> It was a great experience and me and this other person made a diverse range of friends from different types of backgrounds. (F, 6)

> I think that it was important that we worked in groups for this module because in the world of business, teamwork is a very critical aspect of running a business. (G, 8)

> I really enjoyed this aspect of the module most because not only was I coming out of my comfort zone to learn further group-work skills but I was provided the opportunity to learn a diverse range of skills such as negotiating, building friendships and also managerial skills. (Ack, 9)

Group work is notoriously known for its challenges, as members come from different backgrounds and not all members contribute equally, or share the same interest about a particular area of study (McKinney and Graham-Buxton 1993; Monk-Turner and Payne 2005). A number of themes emerged from the focus groups, including challenges with motivating others and a lack of experience in intercultural communication. As one student commented:

> The issues encountered were that not all members wanted to pull their weight due to either lack of interest or lack of understanding of the instructions but this would have been mainly caused by language barriers and some members of the group having a lack of understanding of English terminology. (B 2)

Another important theme was a disparity in different students' ability to devote extra-curricular time to work on the group project: "Group dynamics were affected fairly greatly by additional responsibilities outside university" (BH 7). It is not uncommon for non-traditional students to have high numbers of hours of part-time employment as well as caring responsibilities in addition to their studies, and this often impacts on their ability to attend activities outside of scheduled classes (see Caldwell and Cattermole 2015).

Some students recognised that motivation was an important factor in whether students completed their tasks:

> Some students didn't get back to their directors. This wasn't always caused by additional responsibilities, sometimes it was caused by these individuals who weren't interested in participating in the project or their heart wasn't really in it. (DN 18)

Other groups tried to work with the variation in motivation and interests within their group, a process which was facilitated by the fact that the students had already studied together for a year and so knew each other fairly well:

> Me and my friend thought it would be a good idea to choose jobs for people basing on their biggest strengths and passions. So for example if some had a passion for marketing they would be allocated a job in marketing, if

someone wanted finance then they would be joining that sector and so on. This was done to try and increase productivity and motivation within the group and encourage those less likely to do their workload to actually try and assist the rest of the group by doing something they are passionate about. (GJK, 9)

Developing an Entrepreneurial Mindset

The individual expectations of the module varied and some students seemed unprepared for what would happen during the experience. A number of students were very anxious about the prospect of starting a business:

When I first found out I was going to be running my own business and possibly carrying this on for many years to come the first thoughts that came to mind was extreme anxiety ... however eventually this turned into very positive feelings having learnt a more wider range of skills. (JA 8)

I felt extremely stressed about some of the biggest worries that business people can face before starting their own business ... just for a few examples of worries: is the business affordable, what about study commitments especially dissertations, also will grades be impacted for the worse because of being distracted by other interests, or the over creative thinking of ideas, or strategies for running the business. (CK 7)

From the focus group responses, it seems that students' motivation and interest in becoming an entrepreneur grew as a result of the experiential learning. Some students commented that:

I have never assumed that entrepreneurship could be learnt. I always convinced myself that to become an entrepreneur required specific talents and personality. The knowledge acquired in this module was a revelation and the practical activities added to my interest and ambition to become an entrepreneur. (G, 2)

The way the module was designed, and the teaching delivered through the module, helped to dispel the myth that entrepreneurs were merely

self-made. Such disclosure increased significantly their awareness of entrepreneurship as a career in which they could more easily contemplate after their graduation.

Challenges for Embedding Experiential Learning

Although the entrepreneurship module seemed to offer valuable opportunities for students to implement what they have learnt in class and test a business idea at a trade fair, there were clear challenges which were experienced by both the students, tutors, and the university at large. In relation to students, experiential education was a new approach which was different to previous learning experiences and some were unprepared and anxious at the thought of running their own business. Many students had not originally aspired to become entrepreneurs, and many were focussed on passing the course and getting a "good" job in an organisation after graduation. However, it is clear that as the module continued, more students embraced the experience and became more open to entrepreneurship. The guest speakers and mentors also commented that students could be encouraged to be more ambitious and creative with their business ideas.

The challenge for the module lecturer was to manage the students' expectations as well as ensuring that the changes were supported by the institution and other academic staff. In the first instance, creativity had to be used to design a new teaching approach that incorporated experiential aspects in the curriculum without tampering with the module learning outcomes. The module lecturer also had to convince the Business School Management of the importance of integrating practical activities in an already validated module. The module tutor also had to procure the guest speakers and make all the necessary arrangements for the trade fair. The major hurdle was obtaining the funding to support the proposed activities as the approach of giving groups of students start-up investment had not been used before. Approval had to be gained from the Head of School to put in a bid for financial resources from the university budget for the

start-up investment of £20 per group. Emphasis was also placed on groups to raise additional funding and conditions were put in place to ensure that each group was accountable for the money given to them and were able to generate an income.

Conclusion

Overall, students appreciated the real-world experience and knowledge of external speakers and mentors and appreciated the more practical and hands-on approach to learning on the module. The case study demonstrates that experiential learning can be embedded into the delivery of modules, without necessarily having to change the learning outcomes or assessment strategy, at least initially. However, educators planning to undertake this approach should consider that it is important to gain strategic and managerial support so that the experiment can be appropriately resourced. It is clear that experiential learning in entrepreneurship courses can encourage students to come out of their comfort zone, try out new skills, and unfold undiscovered talents and interests in entrepreneurship.

References

Caldwell, E., & Cattermole, C. (2015). Student perceptions of barriers to networking with employers. *Higher Education, Skills and Work-Based Learning, 5*(3), 287–298.

Clark, R. W., Threeton, M. D., & Ewing, J. C. (2010). The potential of experiential learning models and practices in career and technical education and career and technical teacher education. *Journal of Career and Technical Education, 25*(2), 1–21.

Colbeck, C. L., Campbell, S. E., & Bjorklund, S. A. (2000). Grouping in the dark: What college students learn from group projects. *Journal of Higher Education, 71*(1), 60–83.

Cope, J. P. (2005). Towards a dynamic learning perspective of entrepreneurship. *Entrepreneurship Theory and Practice, 29*(4), 373–399.

Cope, J. P. (2011). Entrepreneurial learning from failure: An interpretative phenomenological analysis. *Journal of Business Venturing, 26*(6), 604–623.

Cope, J., & Watts, G. (2000). Learning by doing: An exploration of experience, critical incidents and reflection in entrepreneurial learning. *International Journal of Entrepreneurial Behaviour & Research, 6*(3), 104–124.

Davidsson, P., & Honig, B. (2003). The role of social and human capital among nascent entrepreneurs. *Journal of Business Venturing, 18*(3), 301–331.

Delmar, F., & Davidsson, P. (2000). Where do they come from? Prevalence and characteristics of nascent entrepreneurs. *Entrepreneurship & Regional Development, 12*(1), 1–23.

Dewey, J. (1938). *Experience and education*. New York: Macmillan.

Dyrud, M. A. (2001). Group projects and peer review. *Business Communication Quarterly, 64*(4), 106–113.

Jones, C., & English, J. (2004). A contemporary approach to entrepreneurship education. *Education + Training, 46*(8/9), 416–423.

Kim, P. H., Aldrich, H. E., & Keister, L. A. (2006). Access (not) denied: The impact of financial, human, and cultural capital on entrepreneurial entry in the United States. *Small Business Economics, 27*(1), 5–22.

Knowles, M. S. (1980). *The modern practice of adult education: From pedagogy to andragogy* (2nd ed.). San Francisco: Jossey-Bass.

Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development*. Englewood Cliffs: Prentice Hall.

Kolb, A. Y., & Kolb, D. A. (2005). Learning styles and learning spaces: Enhancing experiential learning in higher education. *Academy of Management Learning & Education, 4*(2), 193–212.

Lewis, L. H., & Williams, C. J. (1994). Experiential learning: Past and present. *New Directions for Adult and Continuing Education, 62*, 5–16.

Longmore, M. A., Dunn, D., & Jarboe, G. R. (1996). Learning by doing: Group projects in research methods classes. *Teaching Sociology, 24*, 84–91.

Maranto, R., & Gresham, A. (1998). Using world series shares to fight free riding in groups. *Political Science and Politics, 31*(4), 789–791.

McKinney, K., & Graham-Buxton, M. (1993). The use of collaborative learning groups in the large class: Is it possible? *Teaching Sociology, 21*, 403–408.

Mezirow, J. (2000). *Learning as transformation: Critical perspectives on a theory in progress*. San Francisco: Jossey-Bass.

Monk-Turner, E., & Payne, B. (2005). Addressing issues in group work in the classroom. *Journal of Criminal Justice Education, 16*, 166–179.

Piercy, N. (2013). Evaluating experiential learning in the business context: Contributions to group-based and cross-functional working. *Innovations in Education and Teaching International, 50*(2), 202–213.

QAA. (2012). *Enterprise and entrepreneurship education: Guidance for UK higher education providers*. The Quality Assurance Agency for Higher Education. Source: http://www.qaa.ac.uk/en/Publications/Documents/enterprise-entrepreneurship-guidance.pdf. Accessed 17 July 2017.

Rae, D., & Carswell, M. (2001). Towards a conceptual understanding of entrepreneurial learning. *Journal of Small Business and Enterprise Development, 8*(2), 150–158.

Revans, R. (1976). Management education: Time for a rethink. *Personnel Management, 8*(7), 20.

Robinson, P. B., & Sexton, E. A. (1994). The effect of education and experience on self-employment success. *Journal of Business Venturing, 9*(2), 141–156.

Schuller, T. (2001). The complementary roles of human and social capital. *Isuma: The Canadian Journal of Policy Research, 2*(1), 89–106.

Timmons, J. A., Smollen, L. E., & Dingee, A. L. M. (1985). *New venture creation* (2nd ed.). Homewood: Irwin.

Van Praag, C. M., & van Stel, A. J. (2013). The more business owners, the merrier? The role of tertiary education. *Small Business Economics, 41*(2), 335–357.

Xie, C. (2014). Why do some people choose to become entrepreneurs? An integrative approach. *Journal of Management Policy and Practice, 15*(1), 25–38.

Zaman, M. (2013). Entrepreneurial characteristics among university students: Implications for entrepreneurship education and training in Pakistan. *African Journal of Business Management, 7*(39), 4053–4058.

Zott, C., & Huy, Q. N. (2007). How entrepreneurs use symbolic management to acquire resources. *Administrative Science Quarterly, 52*, 70–105.

5

An Appreciation of the Stakeholder Impact in an Enterprise Education Experiential Learning Event: 'The Enterprise Challenge', a Case Story from Dumfries and Galloway, Scotland

Joan Scott, Bobby Mackie, Robert Smith, and Judy Crooks

Introduction

This chapter narrates a specific series of enterprise educational events collectively known as 'the Enterprise Challenge'. These were designed and delivered annually over a period of six years from 2010 until 2015 by a higher education institution (HEI), the University of the West of Scotland (UWS), in collaboration with external local businesses and business support agencies in a rural area of Dumfries and Galloway. Dumfries and Galloway is situated in southwest Scotland and is one of the most sparsely populated areas in Europe. The population density of the region is 60 people per square mile compared with the Scottish average of 168. It also has one of the fastest ageing demographics in Scotland with significant

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outward migration of young people and in-migration of older people (South of Scotland European Partnership 2006; Crichton Foundation 2006). This has significant implications for the region in relation to the labour market and its ability to provide the skills required by business. Pedagogical approaches were adopted whereby experiential learning aimed to provide opportunities to inspire, develop, and practise creativity and resourcefulness in collaboration with the local business community which provided a shared participation relationship in a wider social context.

The 'Challenge' meets various Scottish Government Strategic Objectives. For example, it is the Scottish Government's hope and belief that sustainable economic growth will enable Scotland to achieve these opportunities and deliver a fairer, smarter, healthier, safer, and greener society. Within the National Performance Framework (Scottish Government 2016), national wellbeing is covered through a wide range of social and environmental indicators and targets including increasing the number of businesses. Moreover, the Scottish Government Strategic Objective (Scottish Government 2011) aims to realise full economic potential with more and better employment opportunities for the people of Scotland to flourish.

More recently, 'The Royal Society of Edinburgh' in its Advice Paper 15-09 (June 2015) recognises that an entrepreneurial culture requires a number of building blocks, such as strong support networks, a ready supply of creation and growth finance, simple start-up procedures, and, most importantly, it needs people with ambition, vision, creativity, commitment, and leadership ability to drive venture creation and growth on a scale that will make a difference to the attainment of sustainable economic growth (Royal Society of Edinburgh 2015). However, The Royal Society of Edinburgh advice paper lacks a comprehensive awareness of the potential contribution of entrepreneurial education in schools with entrepreneurial specialists in higher education institutions providing expertise and learning opportunities to pupils by working in partnerships with schools. The 'Enterprise Challenge' evidences a very practical way in which this gap can be addressed.

The genesis of the 'Challenge' began in 2009 and early 2010 when the lead author Joan Scott suggested to colleagues from the marketing

department that it would be beneficial to UWS and to the local economy if there was a practical, enterprise-based competition for secondary school pupils in the Dumfries and Galloway area. There followed discussions with Head Teachers at various schools to establish that there was a demand for such enterprise-based education. The 'Challenge' event which emerged was a unique enterprise education initiative established at the UWS in Dumfries. The initial brief was to identify opportunities to engage young people from local secondary schools in business and enterprise, to raise the profile of the university, and to recruit more students onto the undergraduate business degree at the Dumfries campus. Previous initiatives held in collaboration with the local business community and business support agencies had provided a plethora of resources to create an intense learning experience to the benefit of all stakeholders.

The 'Enterprise Challenge' proved to be very successful from the onset in 2010 with the demand from local schools to compete and the support from the business community increasing year on year over the six years to 2015. However, an internal reorganisation within UWS led to the rationalisation and closure of the marketing office at the Dumfries campus and a significant reduction of the enterprise education delivery at the campus. These changes along with the loss of the two key marketing staff meant that the 'Challenge' became unviable for the Business School due to a combination of limited resources and funding. This chapter documents and illustrates the processes and practices involved in running such an experiential enterprise education programme and discusses the benefits and challenges of such initiatives. To provide context we highlight the processes and practices using the 2010 Challenge as an illustrative example.

A review of experiential learning theories and the role of enterprise education is presented to underpin the descriptive development and implementation of the Enterprise Challenge and to evaluate the outcomes relative to the stakeholders involved. A part qualitative, autoethnographic methodology is adopted due to the lead author being involved from inception to the end of the programme along with a learning action approach. Theories are used to analyse and make sense of the resultant narratives and stakeholder testimonials linking these to the industry themes. The role of the local business community to provide a

shared participation relationship will be explored to ascertain the impact of the perceived importance of the wider social context within which an entrepreneur operates. An assessment of the pedagogical approaches selected is conducted which aimed to provide opportunities to inspire, develop, and practise creativity and resourcefulness.

Experiential Learning and Enterprise Education Theories: In Brief

The purpose of this brief literature review is to present and review the main theories of experiential learning (Miettinen 2000) and enterprise education (Pittaway and Cope 2007; Penaluna et al. 2012) at a practical level as they relate to the design of the Enterprise Challenge. It must be stressed that from its conception, the 'Enterprise Challenge' was specifically designed to be a vibrant and fun, enterprise learning experience which appealed to secondary school children and not a theoretically based learning experience. The consideration of enterprise education and how this links to a practical, practice-based pedagogy is required in the first instance. Enterprise education is assumed to be an important driving force for fostering and developing an 'entrepreneurial heart' to enable the growth of wealth creation within economies. As such it is not designed exclusively to produce individual entrepreneurs but to allow individuals to learn and adopt key enterprising skills and attributes such as creative problem solving, strategic thinking, and intuitive decision making (National Centre for Enterprise and Entrepreneurship 2017). These skills and attributes are not only beneficial to the individual entrepreneur but also valuable in building intrapreneurship within organisations to achieve success. We argue that enterprise education is therefore critical in developing human capital in terms of building a flexible and adaptable workforce which is key to the success of wealth creation.

The relationship between experiential learning and enterprise education theories is one that is arguably inextricably linked. The emerging body of literature within this field appears to strongly centre around the

process of enacted practice or 'learning by doing' being integral to the approaches taken by educators within this field (Jones and Iredale 2010). The process of delivery comes in a variety of forms such as new venture creation and work experience. The combination of experience and learning appears to be the strength of a pedagogical approach to enterprise education within schools (Pepin 2012). Much of the literature emphasises the requirement of programme delivery to be meaningful and engaging in terms of programmes which take into account local environmental factors and broader social factors (Penaluna et al. 2012).

The importance of social learning within enterprise education programmes is deeply rooted within the experiential learning field. This combination of learning and experience (Gibb 2002) supports the learner within enterprise education to draw upon their tacit and embodied knowledge, empowering them to take control and ownership enabling the development of new learning, critical thinking, and creativity (Higgins et al. 2013). The importance, as previously mentioned above of meaningful experiences within this field, is one of crucial importance. Enterprise education programme delivery in terms of action-orientated practice is deemed to have stronger results if the programme is delivered within a localised business context and/or with individual specific interest to the learner. This theme was observed through the programme of the Enterprise Challenge where undoubtedly many of the young people, who had a natural flair for the entrepreneurial spirit, were often those which were not deemed highly academic and were from lower social economic backgrounds who perhaps would not consider setting up a new venture. They seemed to draw upon their own experiences of resourcefulness and creativity through the process of experiential learning by questioning, actioning, and reflecting (ibid.), thereby increasing confidence and capability.

Having realised that experiential learning was an essential element of the Enterprise Challenge, we sought to build in key elements, namely:

- Learning by doing
- Reflexivity
- Social capital

We considered these elements essential and wanted the Enterprise Challenge to provide enterprise-based learning opportunities within a safe learning space for pupils to develop and practise skills, of creativity and resourcefulness, collaborating with community and business leaders. The concept of the 'learning space' developed by Kolb and Kolb (2005) for experiential learning within HEIs reflects the meaningful approaches to programme delivery within enterprise education. This approach to programme delivery not only concentrates on the constructs of physical and social learning experiences on the tacit and embodied knowledge as discussed above but drives wider experiential learning through social interactions and exposure to the wider business community. By increasing their social capital, this can result in developing intrinsic skills such as confidence, self-efficacy, influencing, and transformational leadership. Reflexivity becomes a key element in this development process whereby the traditional pedagogy changes within the learning space and the educator becomes a facilitator of reflexivity rather than the transmitter of knowledge (Higgins et al. 2013; Kolb and Kolb 2005).

The pedagogical approach adopted was a combination of real-world practical experience of developing business ideas alongside innovative teaching methods. These methods were provided in a conversational storytelling format to fully engage and enthuse and to provide sense and meaning (Hannon 2006) and experience a possible future in enterprise (Jones et al. 2014). The combination of real-world experience blended with theory within the enterprise education field is advocated by much of the literature. Neck and Greene (2011) suggest such programmes should be delivered at the very start of the course to enable undergraduates whom perhaps have very little business experience and confidence to foster an empathetic view of the entrepreneur, to experience the pitfalls and the successes of real-life venture creation before entering the field of study. However, it is argued that although the blend of theory and experiential learning has been key within empirical research studies, additional research requires to be conducted to suggest conclusively that experience of practice leads to increased employment prospects or successful entrepreneurship (Pittaway and Cope 2007).

Contextualising 'the Enterprise Challenge': Aims and Objectives

At the time of the inception of the 'Challenge', enterprise education formed a significant part of the business degree at the Dumfries campus. The premise of the Challenge event was to encourage young people to consider the possibilities of developing new business ideas and becoming local entrepreneurs in years to come to benefit the entrepreneurial ecosystem in the local area. The basis for this practical philosophy was to inspire creativity and enterprise in the region which would hopefully 'spill over' or be retained to benefit the local community.

The theme for the first event in 2010 was 'Dumfries & Galloway on wheels' and the teams were given a relatively wide remit to create business ideas based on this theme to enable them to consider and demonstrate mobility and diversity of rural business. Some of the ideas which were produced included a mobile skate park and an application to be used on a digital device to assist newly qualified drivers in pre-planning rural driving routes. Teams of seven secondary pupils were invited to compete in the challenge with other local secondary schools to win the UWS Enterprise Challenge. In each team, each pupil was assigned a specific role within their team—two pupils were responsible for the radio advert, two were assigned to produce the magazine article, two were tasked with managing all aspects of the photography, and two were responsible for the overall team strategy and presentation/pitch on the final day. Each team also identified a team leader who would manage the team from the initial pre-event briefing in June up until the end of the two-day event in September. Every school was asked to provide a dedicated teacher to support the team, and although they were designated as the main point of contact with UWS, it was expected that the team leader would communicate with UWS regarding any requests or questions from their team meetings and briefings leading up to the event. Head Teachers were invited to attend the presentations. An event programme, which included the logos of all sponsors and supporters, and timetables were printed to provide detailed information to everyone involved. These were important to reiterate and emphasise the set of strict and tight time schedules.

Pupils were asked to think of a business idea in response to the theme and assigned brief. Following 'top tips' workshop sessions from a range of industry-related experts, media reps, and university colleagues, on the first day of the event, the pupils were required to develop and evaluate their ideas.

These sessions enabled them to:

- Write and record a promotional advert at the local radio station
- Design and write a magazine feature
- Brief and work with a professional photographer to capture PR shots to be used effectively in their campaign
- Design and produce a table top display to showcase their work; this would form an integral part of their presentation pitch of their ideas
- Include their marketing campaign strategy to a panel of judges by the end of the second day

The pre-event briefing sessions enabled the teams to begin to create their innovative ideas and to consider and plan what resources and props they might require to make their final ideas meaningful and persuasive to the judges on the final day. These sessions proved to be invaluable as pupils were encouraged to seek out and address any questions or enquiries they may have leading up to the event with the organisers from UWS. Each school was given the opportunity to request assistance to source and transport any items which may have been difficult for them to do given that some schools were travelling a significant distance within the region to participate. These communications not only helped to build team and individual confidence but also assisted to develop supportive networks.

The programme schedule for the two-day event included a combination of interactive presentations and 'top tip' sessions, team time, and action time. The topics included were as follows:

- Key speaker for the designated theme
- Developing and marketing your idea
- Running a small business
- Knowing your customers and target market

- Planning a promotional campaign
- Top tips from the experts
- Creating a radio advert
- Writing and designing a press/magazine feature
- Capturing an effective PR photograph
- Delivering an effective presentation/pitch
- One-to-one support from the experts
- Graphics design and printing support
- Student showcase and presentation of awards

Team working was an integral part of the process and, to further develop this, each team had a designated resourced work zone. Each team was asked to invent a team name and to choose a team colour. T-shirts were then provided in the team colour with their school name and team name printed on them. These were to be worn throughout the two-day event.

The challenge was funded in the main by a contribution from both the UWS Business School and the UWS Marketing and Student Recruitment budget. The strong ties and networks already established with the local community resulted in a number of local businesses enthusiastically providing both financial support and in-kind donations of time and staff resources. Prizes and t-shirts were sponsored each year, catering was subsidised by a local catering company, printing was donated free of charge by the local printer, and the challenge trophy was designed by a local artist and funded by a local business. The local magazine, radio stations, photographers, and printers all committed themselves to support the challenge year after year and, along with the local media, ensured the event was well publicised before and after the event. Staff from these organisations also supported the challenge by judging the various categories, attending the presentations, and providing invaluable opportunities to work not only with the winning team after the event but also with teams whose ideas were of interest. This combination of stakeholders injected an element of realism to the Challenge.

The overall winner would be the team with the highest total score weighted over the following eight prize categories:

1. Best business idea/concept
2. Best preparation and planning
3. Best magazine feature
4. Best radio advert
5. Best photographer
6. Best presentation to include table top display
7. Best teamwork
8. Best team leader (this was an optional award which was only given when a pupil demonstrates exceptional skills as a team leader)

The very tangible enthusiasm of pupils, teachers, university staff, and local businesses during the initial event in 2010 resulted in the 'Challenge' becoming an annual event and a highlight in school, university, business, and community calendars for the next six years. While the theme changed each year, the format was in the main the same. Due to the success and prestige attached to the event, the number of schools increased from seven in 2010 to ten schools in later years. Thereby the number of senior secondary school pupils taking part rose from 56 to a total of 80 pupils per year.

Developing and Refreshing the 'Challenge' via Annual Themes

A strength of the 'Challenge' was that although the delivery format/framework remained constant each year, a different theme was selected by the steering group to ensure the ideas remained fresh and to eliminate plagiarism. The following were the different themes chosen each year related to local community, regional, or national initiatives which were active at the time:

- **2011**—Local food and drink—The remit was to create a new food and drink-themed business idea building on the region's reputation for high-quality food and drink products.
- **2012**—Supporting the Year of Natural Scotland—The remit was to maximise the potential opportunities resulting from Dumfries and Galloway's natural playground.

- **2013**—National Centre for Children's Literature—Supports the plans of the Peter Pan Moat Brae Trust to create innovative activities and creative spaces for the new National Centre for Children's Literature based at Moat Brae House in Dumfries.
- **2014**—Promote your town at Christmas—Teams were asked to 'unwrap Dumfries and Galloway' and produce an innovative and engaging promotional campaign to promote their town at Christmas.
- **2015**—Children's ward at the new general hospital—Teams to contribute to the design process of the paediatric department within the new hospital for Dumfries and Galloway. In addition, pupils were required to produce a promotional campaign to encourage visitors to attend an open day at the new facility.

Challenges, Benefits, and Impacts

Challenges

As with any new initiative, there were several issues facing the organisers. The area of funding and resourcing the event to provide a quality experience for the pupils was the first aspect to be addressed. Sustaining sponsorship annually to make the event happen each year was not without its challenges despite the regular support from the local community. These strong networks and ties were beneficial in strengthening the proposal to the university budget holders. Other challenges included the logistical such as:

- The time commitment of schools, businesses, and UWS staff and coordinating these
- The tight timescales over the two days were problematic, and there was pressure relating to printing press features, printing certificates there and then, finishing within a reasonable timeframe for commuting to rural areas
- Competition was 'fierce' between schools
- Transport costs

- Room availability
- Timing of the event to fit with school, university, and business timetables/schedules.

Organisational challenges included maintaining 'buy-in' from university management because although they liked and praised the event, it was more of a profile raiser and community engagement activity than a student recruitment event. Although limited to only a few, UWS did recruit students directly because of the event.

Discussions and feedback from teachers indicated that a significant number of their students were able to critically reflect on their experience of the Challenge. This was clearly evidenced in personal statements when pupils were applying for undergraduate degree study programmes and in job applications for those entering the workplace.

Plans were being discussed to make the 'Challenge' an accredited programme for school pupils in later years. However, the 'Challenge' ended prior to this being initiated.

The sustainability of the programme in the short term was due to the enthusiasm and willingness of colleagues from marketing and the voluntary support from the local business community and local business agencies. This invaluable provision was increasing year on year as news of the success of the event spread throughout the schools and local business communities. However, the requirement to include a costing for staff time and plans to 'scale up' the event meant the event would not be sustainable in the longer term.

Benefits and Impact

The impact was considerable in terms of positive local publicity for UWS and the stakeholders involved. This included positive media coverage and vibrant marketing materials to promote the BA Business programme and campus profile.

The challenge emphasised some of the more dynamic aspects of enterprise, providing pupils with an insight into business, interacting and forming social capital with members of the business community and

business support agencies, seeking to develop the pupils understanding, empathy, and ownership. Other transferable skills, knowledge, and experience included:

- High-quality oral/written/presentations and creative visual displays
- Healthy competitive spirit in a safe environment
- Opportunities to collaborate and implement their ideas with businesses and the wider local community
- Team work and confidence building
- Reflexive approach and learning from experience
- Organisation and planning
- Managing resources effectively
- Time management

Another downside to the 'Challenge' was that it became a 'victim of its own success'. The demand from schools to take part was such that the number had to be capped to ensure the quality of the event was not compromised.

Testimonials

Over the six-year period in which the programme took place, 432 senior secondary school pupils participated in the event with input and support each year from over 20 organisations from the business and local communities. The mutually supportive sample of testimonial narratives presented in Table 5.1 indicates a unifying theme of a shared and vicarious learning event. Constructive critical feedback was very limited and related mainly to frustration from Head Teachers with the application process to take part in the programme which was a 'first come first served' basis and subject to the ability of schools to respond quickly. This was under review in consultation with schools.

This shared and mutual sense of achievement from pupils, even those who did not win, and other stakeholders indicate that there were no losers as everyone has learned something from the experience.

Table 5.1 The Enterprise Challenge stakeholder testimonials

Testimonial feedback and quotes	Keywords/themes
Teachers	
We are very fortunate to have been given the opportunity to participate in the UWS Enterprise Challenge for the last four years. Each year our students have gained so much from this opportunity – not least working with a dedicated group of professionals who stretch and challenge the young people to extend their knowledge and skills. This team-building experience affords them the opportunity to demonstrate the four capacities promoted within the Curriculum for Excellence (CfE) and gives them invaluable experiences to take forward into their future lives.	**Stretch and challenges pupils** **Extends knowledge and skills** **Fits with the Curriculum for Excellence** **Invaluable life experience**
The school is buzzing with excitement over this prestigious event and award which creates such a great opportunity for the pupils. The variety of experiences that they are given, the people that they get to meet and I think more importantly the skills they are developing, can only be of benefit to them as they move forward. I know how difficult it is to get partners on board for such a project, so it is a real credit that so many willing partners from a variety of businesses and backgrounds give their time to support the UWS Challenge	**Exciting** **Prestigious event** **Developing skills and knowledge** **Benefit their future** **Unique opportunity to interact with a variety of businesses**
Our team were extremely positive about the event and gained a great deal from it. They particularly enjoyed the opportunity to meet lots of people from other schools and from local businesses. The tasks gave the pupils the chance to engage in meaningful teamwork and gain transferrable skills. Working to tight deadlines presented challenges that the youngsters were keen to rise to. Indeed, the entire timing of the event was 'spot on'. The slickness of the entire operation was impressive. The radio broadcasts were a highlight and the posters and press materials were very professional and now proudly on display in school. Contact from UWS before and after the event was excellent and we would welcome the opportunity to be involved in future	**Positive** **Challenging** **Gained great deal—team work, time management, transferrable skills** **Interact with local businesses and other school pupils** **Practical application—learning by doing** **Proud** **Professional outputs** **Well-organised event**

(*continued*)

Table 5.1 (continued)

Testimonial feedback and quotes	Keywords/themes
Pupils	
We all thoroughly enjoyed our two days at the Enterprise Challenge. We especially enjoyed going to the Radio station 'Alive' and were delighted with winning the overall radio advert prize – recording the advert was a great experience. We also enjoyed making friends with the other teams across the region. Although the presentation was nerve racking we were fine when we stood up and started to speak! Some of us want to get into business when we are older so the Enterprise Challenge made us realise just how passionate we really are about business! Overall, we all really enjoyed the challenge and are grateful for all your help!	**Enjoyment** **Great experience** **Social interaction with other school pupils** **Raising awareness of passion for enterprise/ business** **Confidence building**
The event really built my confidence by Friday afternoon	
It was so interesting – especially hearing about local businesses	**Very interesting**
Can I go again next year – I have some great ideas!	**Enthusiasm/ creativity/ innovation**
The Enterprise Challenge was a brilliant experience to partake in. It provided the whole team with important skills that we will all use in the future at some point – teamwork, meeting deadlines, a good presentation, creativity the list is endless! I would certainly like to do this activity again	**Brilliant experience** **Important skills for whole team** **Endless list of developing skills for the future** **Want to participate again**
Sponsors and local business community	
We were delighted to support UWS and their Enterprise Challenge. Over two days we see school children develop positively, learn new skills, processes and in a practical way display this. The young people involved will not forget it and it will be a very encouraging and positive influence on their future. It is no surprise businesses and individuals who want to give back to the community, get involved in the Enterprise Challenge	**Delighted to support event** **Positive development of new skills for the pupils** **Unforgettable experience** **Very positive local business involvement**

(*continued*)

Table 5.1 (continued)

Testimonial feedback and quotes	Keywords/themes
I have been lucky enough to have been involved with UWS Enterprise Challenge as a media expert / top tips presenter since the inaugural event and must say, it is one of the highlights of my working year	**Highlight of working year** **Enthusiasm/ excitement**
It is certainly one of the most rewarding experiences; being able to work with 80 pupils on such an innovative project. It's great to see how UWS Enterprise Challenge has been embraced by schools over the years, how the different teams coming through each year both tackle the challenge and make the most of the opportunities and experiences on offer. I love seeing the passion and enthusiasm the pupils show for the task in hand	**Rewarding experience** **Innovative project** **Passion and enthusiasm on display from the pupils**
I am always impressed with the imagination, creative flair, enterprising ideas, team work and commitment of all the young people I work with during UWS Challenge and it's so rewarding when they say they have learned something new, and enjoyed the experience	**Impressed with creativity and imagination** **Rewarding to see pupils learning and enjoying experience**
I thought it was encouraging that there were more schools represented this year which hopefully shows that schools think it is a valuable experience for the young students. I found it refreshing that so many young people can be so creative and their confidence to present is commendable. I hope we can continue to support this initiative in future	**Increase in number of participating schools** **Valuable experience for pupils** **Creative and confident presentation skills** **Continued support of the event**

(*continued*)

Table 5.1 (continued)

Testimonial feedback and quotes	Keywords/themes
Magnox Ltd., Chapelcross has been delighted to support the UWS Enterprise Challenge over several years through its Socio-Economic Funding Scheme. The partnership which has developed has been beneficial and rewarding to all parties involved. The UWS Challenge creates opportunities, engages young students and allows the development of entrepreneurial and innovative skills, as well as team building in a challenging environment. The mentors who work alongside the students offer a vast and varied range of professional skills which the students may never obtain the opportunity to experience were they not taking part in this Challenge. The themes are well developed and allow the students to address creative and business aspects of the challenge whilst encouraging confidence building as individuals and as team members when presenting their projects. The event is extremely well organised and has grown year on year becoming a showcase of young talent from Dumfries and Galloway	**Support from the socio-economic funding** **Beneficial and rewarding to all stakeholders** **Creates opportunities** **Engages pupils** **Develops entrepreneurial and innovative skills** **Team building** **Provides access to vast and varied professional skills from local business mentors** **Well-developed and planned themes** **Allows for creativity, insight into business** **Increases individual and team confidence** **Extremely well organised**

Conclusions

Having reviewed the experiential learning theories utilised in designing and operating the 'Challenge' and having evaluated the outcomes relative to the stakeholders involved, we have completed the learning circle by documenting, analysing, and reflecting on the learning experiences. We passionately believe that this was a unique and very powerful enterprise learning experience and hope that this chapter can act as a template for others to follow or design other similar experiences. In many respects, this has been an action learning experience for us because we cannot separate ourselves from the qualitative part auto-ethnographic approach adopted. The 'Challenge' highlights the importance of experiencing a real insight into what it means to be a practising entrepreneur whereby the students were encouraged to consider the possibilities of developing new business ideas, to realistically consider self-employment, and, just as importantly, to develop enterprising employees who can contribute to the success of the organisation in which they work. The 'Challenge' provided students with a real-life insight into the role of the local business community to provide a shared participation relationship and also increase and develop their social capital. We believe that the 'Challenge' has made a significant impact on the students, the schools, and the wider social context within which an entrepreneur operates in Dumfries and Galloway. However, we can only take it on face value that the pedagogical approaches selected delivered on the aim to provide opportunities to inspire, develop, and practise creativity and resourcefulness in young people.

In an ever-changing business global environment, the need for our national labour market to have the relevant transferrable skills, knowledge, and experience is viewed as crucial to sustaining economic growth. Empirical research studies strongly suggest that experiential learning is a key element of enterprise education. The pedagogical approaches currently being used in HEIs would appear to require a significant change to transform the delivery of enterprise programmes and to include reflexivity by facilitating the learning cycle through formalised personal development planning.

References

Crichton Foundation. (2006). *About Dumfries and Galloway*. Dumfries: Crichton Foundation.

Gibb, A. A. (2002). Creating conducive environments for learning and entrepreneurship: Living with, dealing with, creating and enjoying uncertainty and complexity. *Industry & Higher Education, 16*(3), 135–148.

Hannon, P. D. (2006). Teaching pigeons to dance: Sense and meaning in entrepreneurship education. *Education & Training, 48*(5), 296–308.

Higgins, D., Smith, K., & Mirza, M. (2013). Entrepreneurial education: Reflexive approaches to entrepreneurial learning in practice. *Journal of Management Studies, 22*(2), 135–160.

Jones, B., & Iredale, N. (2010). Enterprise education as pedagogy. *Education + Training, 52*(1), 7–19.

Jones, C., Matlay, H., Penaluna, K., & Penaluna, A. (2014). Claiming the future of enterprise education. *Education & Training, 56*(8/9), 764–775.

Kolb, A. Y., & Kolb, D. A. (2005). Learning styles and learning spaces: Enhancing experiential learning in higher education. *Academy of Management Learning and Education, 4*(2), 193–212.

Miettinen, R. (2000). The concept of experiential learning and John Dewey's theory of reflective thought and action. *International Journal of Lifelong Education, 19*(1), 54–72.

National Centre for Enterprise and Entrepreneurship. (2017). *Leading thinking in enterprising and entrepreneurial institutions*. [Online] Available: http://ncee.org.uk/. Accessed 08 Aug 2017.

Neck, H. M., & Greene, P. G. (2011). Entrepreneurship education: Known worlds and new Frontiers. *Journal of Small Business Management, 49*(1), 55–70.

Penaluna, K., Penaluna, A., & Jones, C. (2012). The context of enterprise education: Insights into current practices. *Industry & Higher Education, 26*(3), 163–175.

Pepin, M. (2012). Enterprise education: A Deweyan perspective. *Education + Training, 54*(8/9), 801–812.

Pittaway, L., & Cope, J. (2007). Entrepreneurship education, a systematic review of the evidence. *International Small Business Journal, 25*(5), 479–510.

Royal Society of Edinburgh. (2015). *Enterprise education, entrepreneurship education and skills for growth* (Advice Paper 15-09). [Online] Available: https://www.rse.org.uk/wp-content/uploads/2016/09/AP15_09.pdf. Accessed 17 Mar 2017.

Scottish Government. (2011). *The government economic strategy*. [Online] Available: http://www.gov.scot/Publications/2011/09/13091128/0. Accessed 17 Mar 2017.

Scottish Government. (2016). *National performance framework*. [Online] Available: http://www.gov.scot/Resource/0049/00497339.pdf. Accessed 17 Mar 2017.

South of Scotland European Partnership. (2006). *South of Scotland labour market and economic intelligence report 2006*. Available: http://www.sosep.org. Accessed 10 Mar 2017.

6

Embedding Interdisciplinary and Challenge-Led Learning into the Student Experience

Jess Power

Introduction

The Innovation and Creative Exchange (ICE) uses the concept of challenge-led learning to enable undergraduate (UG) students to co-create knowledge and form knowledge communities/exchanges leading to the developments of skills and attributes associated with employability, enterprise, and entrepreneurship. This chapter presents a blueprint for experiential learning in practice through employing interdisciplinary wicked challenge-led learning opportunities as part of the Higher Education (HE) UG experience. A case study is presented which focuses on specific elements of the ICE project at the University of Huddersfield, UK. This project was initially funded through the Royal Academy of Engineering Visiting Professor Scheme, with Professor Jonathan Sands—Vexillifer Elmwood—as the Visiting Professor of Innovation (VPI). Drawing on the work of Kolb (1984), ICE focuses on the elements of

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experiential learning concerned with concrete issues related to the learner and the learning context, so learning by doing. The case study presents a synthesis of impact in relation to interdisciplinary, wicked, design-led challenges from the student's perspective.

It is widely recognised that in global society, environments are characterised by wicked problems, the solutions to which require transcendence of traditional discipline-based boundaries, new forms of knowledge-sharing, and a tool belt of transferable skills. This wicked, messy context (Jordan et al. 2014) demands a shattering of traditional disciplinary boundaries and creates a strong rationale for embedding interdisciplinarity into the HE student learning experience. Furthermore, the call for HE to embed employability, enterprise, and entrepreneurship opportunities into the student experience is compelling (DIUS 2008; QAA 2012; RAE 2012; McLeish and Strang 2014; DC 2015; BIS 2016). Graduates as society's leaders need to be highly skilled, commercially aware, and able to apply creative ideas and innovations to practical real-world scenarios. The ICE project provides a direct experience in which the learner is actively involved in the real situation through global wicked challenges or commercial challenge-led activity. It brings together students from different disciplines and places value on what each learner brings to the educational experience, which is a key aspect of experiential learning. The case study presented is a synthesis of the feedback from the student participants (2012–2017) and commercial partners involved in a series of 24-hour/7-hour design challenges. This data is complemented by a series of interviews with a team of students 12 months after their initial challenge-led learning experience. It is framed in the core principles of experiential learning, learning by doing, and learning through reflection on doing. The example featured in this chapter as a case study is from the 24-hour design challenge in 2016, the theme of the challenge being internet of things.

Context

Interdisciplinary working has been recognised as a key contributor in solving complex global social problems (DIUS 2008; QAA 2012; BIS 2016). It therefore follows that graduates as society's leaders, with a genuine interest in making the world a better place, must have the ability and confidence to

work across disciplines. In today's global economy and in society as a whole, we are faced with many wicked challenges which require new ways of working, and graduates need to be prepared for this through the integration of interdisciplinary working within their UG experience. It has been recognised that the commercial sector is suffering skill shortages (BIS 2016). A recent report by the Association of Graduate Recruiters (AGR 2016) acknowledged that 71% of employers tailor their recruitment to find candidates with commercial awareness, but a mere 15% hire graduates with this skill. Further to this it was ascertained that problem solving, teamwork, self-awareness, and interpersonal communication were skills that employees thought should be developed as part of a student's HE experience (AGR 2016). This is supported by a plethora of literature which advocates the value of providing interdisciplinary collaborative experiences within HE which use live briefs and problem solving as a mechanism for enhancing learning, employability, enterprise, and entrepreneurial development (Stember 1991; Power 2010; Marcketti and Karpova 2014; De Hei et al. 2015). One of the main barriers to embedding interdisciplinary working into the undergraduate experience is the UK HE modular structure of curricula based in academic disciplines. This modular structure prevents cross-fertilisation and networking opportunities between disciplines simply due to logistics and timetabling resulting in closed-minded/parochial approaches to teaching. It has been suggested that interdisciplinary work should sit outside the norms of the department/faculty structures and be given sufficient budget and resources (Power and Handley 2017). An alternative approach to embedding interdisciplinary working into the curricula might be to validate a shared module/unit which is a formal part of taught programmes from different departments or faculties. This however would present some challenges in terms of logistics of timetabling, workload, and space in addition to challenging the real and perceptual boundaries that function to maintain ownership and authority over territories of knowledge.

Background to ICE

ICE provides a dynamic and unique environment outside the traditional curriculum for UG students from different disciplines to work on wicked global challenges and commercial challenges. It introduces disruptive

parameters to impact on learning, placing students in a time-controlled environment (either 24 hours or 7 hours), challenging students both creatively and technically in a competitive interdisciplinary environment. This enables the development of essential employability skills such as problem solving, resilience, communication, team working, and project management.

Second year UG students from all disciplines across the university are offered the opportunity to register for an extra-curricular 24-hour/7-hour wicked or commercial design challenge. Between 30 and 40 places are available per challenge, with prizes for the winning teams which vary depending on funds and commercial sponsorship; short internships between one and five days for the winning team are the favoured award. Initially students are invited to register for a challenge, and the discipline and specific UG programme for each individual are noted. This maximises opportunities for interdisciplinary teams to be created. The event is advertised and marketed as an opportunity for participants to network beyond their core discipline, co-create knowledge, and enhance employability and develop enterprise and entrepreneurial skills and attributes through problem-solving activities, so the students are learning by doing. There is the requirement within every challenge to present ideas, concepts, and solutions to a panel of internal judges and external judges from the commercial sector. The framework for wicked and commercial challenge-led learning is illustrated in Fig. 6.1.

Methodology

The themes for the design challenges are revealed on the first morning of the event, by the organiser. Students are introduced to the challenge theme in the form of a simple statement and provided with a set of ground rules including guidance on intellectual property. The challenge theme is deliberately set as a wicked global challenge which is open and complex and is initially presented as a single statement. Recent challenge themes have included safety in extremes, sustainable solutions for global challenges, the ageing population, internet of things, and sustainable recycling in the twenty-first century. An expert/commercial speaker presents

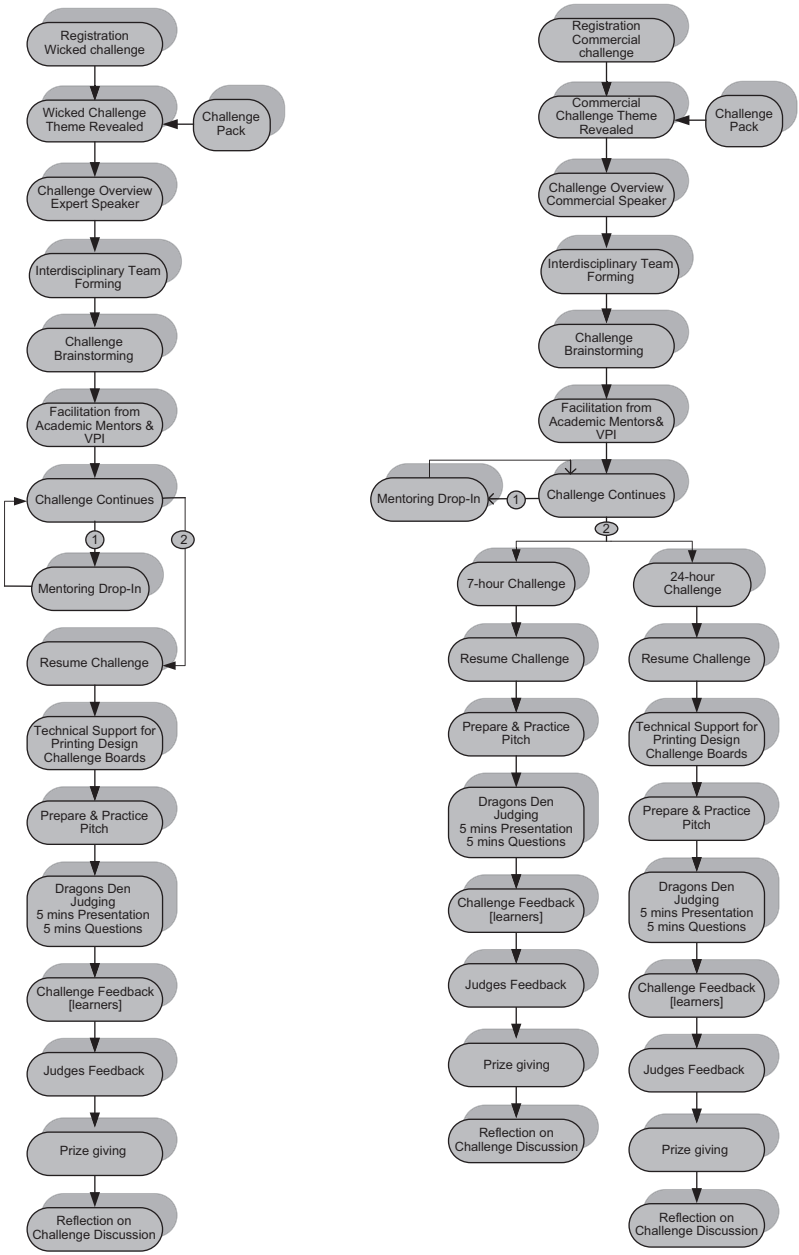

Fig. 6.1 Framework for the wicked and commercial design-led challenges

an overview of up to 60 minutes, exploring different discipline angles and perspectives, opening discussion and interaction with the student participants, and providing provocation around the theme. All students are encouraged to take notes and interact with this activity, and a full copy of the slides is available once the challenge theme has been released. There is an opportunity for questions at the end of the guest speaker's presentation to clarify any uncertainty.

Following the formalities, the student participants are split into interdisciplinary teams of three to five members. The decisions regarding team members are based entirely on the disciplines in attendance on the day, and groupings are carried out whilst the students are engaged with the guest presentation. Each team is issued with a challenge pack which contains a printed copy of the schedule for the 24-hour challenge, copies of the guest speaker's presentation, notebooks, pencils, and a USB memory stick containing a proforma for a poster-style design challenge board, which is to be used to present the solution to the challenge to the judges. A printing slot is also issued with technical support for the second day of the challenge. Where possible all teams include one member from a design discipline; this is to ensure students have a connection with the technical support for the design challenge board and printing which is offered through the School of Art and Design.

The teams are then encouraged to spend the remainder of the morning brainstorming the wicked challenge and getting to know their team members' skills and background. The room is set up so that each team has a workable space including a large table. The teams are encouraged to use the resources and facilities they have in their respective departments and the wider university facilities such as the internet and library. This is to encourage cross-fertilisation between disciplines across the university. The guest speaker and facilitators, including academics from different faculties within the university and a Professor of Innovation, circulate around the groups to enable further questions and dialogues to occur. A working buffet lunch is provided for all teams, and then the students are left to pursue the challenge in whichever way they choose, with the base room remaining available for those wishing to use the space. Various approaches are used by the teams to address the challenge. Many teams segregate tasks and separate individually or in pairs in pursuit of their

goals, forming later as a team to share findings. Mid-afternoon on the day of the challenge, a mentoring drop-in is scheduled with academic staff from different disciplines. This is a voluntary, facilitated session to give the teams the opportunity to discuss the practicality of their ideas. Quite often the students talk through a range of ideas and solutions to the challenge to identify the most feasible idea/solution to develop further and present to the judges on day two. Not all teams choose to attend; some teams engage with the task independently, emailing academic mentors if they have any queries. The remainder of the day is spent preparing the design challenge board for the presentation on day two. Students are not expected to work beyond 5 pm; however, if they choose to do so, that is acceptable.

Day two begins with the student challenge teams using their allocated time slot for printing with the technical support team, resulting in a high-quality design challenge board to present to the judges later in the day. The student teams are each given five minutes to pitch their solution to the wicked challenge in a *Dragons' Den* format to a panel of four judges, with opportunity for questions from the panel. The teams spend the remainder of the morning practising their pitch, and all team members are encouraged to participate in this activity. This is to ensure learning opportunities are maximised and all students develop presentation skills. Each team is allowed one printed design challenge board, and the use of PowerPoint is strongly discouraged primarily due to the limited timeframe. Some teams bring in laptops with short videos to demonstrate their design concept, and this is particularly evident with the teams that include product design students since they already have this skill set.

The pitches begin after lunch and the judging panel consists of members from different disciplines: two from the commercial sector and two academics, one from the enterprise team and the second from a discipline to complement the challenge. In a commercial challenge, the company advises on the judging panel. The presentations are dynamic and fast moving meaning students need to work as a team, managing their time and thinking on their feet to answer questions posed by the judging panel. The judging criteria are focused around six areas:

- Presentation skills
- Concept/idea/design
- Approach to research
- Team skills/group working (reflections)
- Commercialisation and use of data/benchmarking
- Timing (five minutes)

The panel judges all pitches separately and at the close of judging pulls together all the design challenge boards and cross-reference notes to determine the prize winners. Feedback is collated independently for each team. All student teams are invited back into the room and the judges share their general thoughts in relation to areas for success and improvements offering developmental feedback. Each presentation board and the feedback are available for all teams to see prior to the prize giving ensuring there is transparency in the process. The prizes are then presented in reverse order by a representative of the judging panel, and it is made explicit why the idea/concept was a prize winner, so that all students can benefit from the feedback and reflect on their own experience. At the end of the event, all teams are encouraged to reflect and discuss with the judging panel and their peers their ideas and approaches to learning. During the event notices are displayed regarding image capture to ensure any student can request their image not to be captured and shared. Students are notified at the start of the challenge that their boards may be made available for academic purposes or for marketing.

Analysis

The participant feedback from the design challenges during the period 2012–2017 has been analysed in context of the learner and the learning context (Breunig 2009). The participant feedback was collected prior to the prize giving for each challenge using a combination of open and closed comments (see Figure 6.1). For the purpose of analysing impact on personal experience, it is the open-text comments that are analysed and discussed.

In relation to the participant reflection, many contributors acknowledged a positive learning experience in relation to their emotions and feelings. Many comments used the term "love" to denote a pleasurable experience: "I love working with all of my team who were from different specialisms," "I would definitely love to give this a go again." Others described the event as "fun, exciting, enjoyable, creative, great idea and experience, refreshing, awesome and of personal benefit," stating that they would participate again in this style of learning and would happily recommend the design challenge to others. There were numerous comments relating to the excellent organisation, which suggests that this is something that is important to the learner. A high value is always placed on this, and it is perceived as impacting positively on their learning experience. One notable extract states: "Overall I cannot fault the opportunity of taking part and enjoyed every stress-inducing minute of it. I would definitely do something similar again." This demonstrates that participants appeared to appreciate the disruptive learning techniques and valued the benefits of dealing with unfamiliar circumstances, thus building up resilience. A second student commented "Good experience … [it] put me under pressure…again not a bad thing." Other learners reflected on a deeper level in relation to the impact on their learning experience, valuing new techniques for learning, and had plans to implement them to benefit their studies, demonstrating transferable skills, problem solving, and resilience. For example: "I always struggle coming up with initial ideas so I will be using these techniques in my degree," "I believe I learned a lot from peers in my team and this experience will benefit me in future group projects," and "I have taken this exercise seriously and it will definitely benefit me in the future."

In terms of the learning process, there is evidence to support confidence building, development of interpersonal skills and communication, improved time management, and team working. Unsurprisingly there were many comments relating to the value of developing commercial awareness: many of these were relating to speed to market and appreciation of the commercial pace. It was interesting that one participant reflected on finding the multi-disciplinary aspect quite difficult; another furthered this by stating: "I need to do it again, it is not a matter of if I want to, I need to if I want to improve" again denoting a perceived value

of challenge-led interdisciplinary learning in relation to their personal development.

The learning context formed two category codes in the analysis: Firstly the recognition of "value" of what each learner brings to the experience and secondly a reflection on the "holistic" process of learning through experience. There were a number of extracts relating to the perceived value of team working. These were categorised under three open codes: friendship/networking, impact of collaboration, and skills. In terms of the learning context, the friendship/networking open code was the most significant. Comments relating to the value of discipline epistemologies included: "I also find it incredible that after only a day, I came away with a team that I had formed a friendship with and now have an insight into demonstrating an idea to someone who has the means to make it a reality" and "It was really interesting to work with other students from different subject areas." Comments relating to the value of sustained networking for learning included: "I have contacts / friends on completely different courses to me who I will no doubt be calling on for help on future projects as well as the one we started." Comments relating to the value of skills demonstrated an appreciation of discipline differences "really great getting to know people from other courses and seeing how they work and learning what skills they have that are different from your own" and "it was a new experience to work with students from other departments and try and utilise everybody's skills to work together to produce something." There was also some acknowledgement of missing skills which was interesting and illustrated the value the participants placed on presentation and communication during challenge-led learning. One comment stated: "the lack of other design-based members left no-one with the skills to develop or present ideas on a visual level."

There were a number of extracts relating to the holistic learning experience. These were categorised under four open codes: general comment, value of collaboration, further prospects, and learning value. In terms of the learning context, the perceived learning value was the most significant open code. Participants commented how challenge-led learning had made them "more passionate about [their] subject and [felt] that this would be a good idea to implement within … modules"; others focused on how it had synthesised learning "bringing in different skills we have

learnt throughout our time here so far." Participants again commented that the networking had been beneficial in terms of connecting with peers from other disciplines and making connections with academic staff from around the university. "As an engineer, it is important that I develop the ability to work with multiple disciplines and in the 24-hours we were given I gained a massive insight into how completely separate skill sets can come together to generate an idea." "It was really helpful to speak to the different tutors … and pick their brains about our ideas, as I would never normally come into contact with these courses usually." Other comments in the learning value open code relate to motivation, stimulation, creativity, and the value of learning new things. The general comments were interesting from a critical perspective and will be used to inform new challenges and improve the experience. It was interesting at a basic level that participants felt that the facilitator should "at the beginning [remind them] that swapping contact details in some form is really useful." Whilst this may be perceived to be an obvious process in team working, it clearly was not conducted by all groups and, upon reflection, these students had learned an important process step for future collaborative working/learning. The remaining open categories denoted the value of collaboration with comments such as: "Do it as it fosters collaboration between different schools which otherwise wouldn't communicate with each other." In the further prospects open code, the contribution and value perceived from collaboration by different disciplines, including applied science, business, and design, were clearly evident. Further to the comments from the participants, the judges' and Visiting Professor's comments demonstrate the value to the commercial sector. Professor Jonathan Sands (Elmwood) commented: "Real energy and passion is created when teams of students from the different disciplines come together".

What Next?

Following the 24-hour wicked design challenge, all teams were offered the opportunity to attend a Proof of Concept Development Day. This involved active participation in design thinking, the business canvas

model, IP/patenting, and a technical specifications seminar. The students had the opportunity to apply for a £1000 grant to prove a concept. Academic staff were available throughout the day to assist student teams in developing their ideas into a proposal. Further to this all teams who were interested in applying for the funds were allocated two mentors either academic or commercial, to assist them in managing the project. Below is a mini-case study from the winning team of the internet of things 24-hour design challenge in 2016. The case study presents the team's journey after 12 months. A team of four second-year students from different disciplines including interior design, graphic design/animation, electrical engineering, and product design was formed. The team worked together on the challenge theme 'the internet of things' and came up with a concept of the Blue Bin. The concept was to design a bin that could be used in the university to recycle paper giving print credit to individual users. Students who were identified by their university ID card would enter their waste paper into a smart bin which weighs the paper deposited; each student was then rewarded with print credits. There would also be a smart app to accompany the physical bin which has a gaming element enabling data to be compiled showing which of the university's academic schools is most diligent in recycling. The four students developed the concept and explored potential mechanisms theoretically during the 24-hour design challenge. The judges awarded them first prize for the concept, development, and presentation of the idea. The team then attended a half-a-day Proof of Concept event to develop their ideas further which was closely followed by an Innovation Funding Day event where the team worked together with academic and industry mentors from across different disciplines to develop their idea for a funding grant of £1000. Professor Stefan Gabriel (VPI) was at this event to advise on developing concepts into business plans/incubations. The Blue Bin team decided to prove their concept by developing a working prototype. During the next three months (July–October), the team worked closely together to build a prototype using the funds to purchase mechanical and electronic components to enable the concept to be turned into reality. Figure 6.2 illustrates the initial design board, the concept, and the actual working prototype developed (courtesy of Project Blue). This was presented in an additional *Dragons' Den*-style competitive event, and the team won the prize for the most innovative proof of concept.

Fig. 6.2 Blue Bin and Project Blue challenge board, concept, and prototype. (Courtesy Project Blue 2017)

In terms of experiential learning, the members of the team provided a 50-word reflection on their individual experience after the event. There are some similarities in terms of emotions/feelings, the values to learning, and the holistic process reported generally by the participants of the 24-hour challenges. This offers evidence of a concrete learning experience, reflection, conceptualisation, and active experimentation (Kolb 1984). The students recorded a variety of emotions and feelings around both the process and directly with the learning experience. Friendship and networking appeared to be a priority. Comments included: "It has been an unbelievable experience that has offered me the chance to not only meet new people and make forever friends" and "The ICE project for me has been such a beneficial experience. I've learnt skills which I would never have gained through my degree and I'm still being offered brilliant opportunities and meeting new people due to taking part in this project." The value of cross-discipline collaboration and its impact on learning were also recognised with comments such as "The ICE 24-hour challenge, in tandem with the inception of Project Blue [brand name], has been an amazing experience collaborating with a team of incredibly talented students in the development of a simple idea into a flourishing project" and "to my surprise the value of the ICE challenge has been not only been in the high-pressure work itself, but in the experience and highlighted importance of cross-discipline student collaboration." Other comments include: "I look forward to seeing where Project Blue takes us next, and the opportunities for collaboration with other students and industry partners." The value to skill development for commercial awareness is also evident. The participants made comments such as: "Personally as a designer, Project Blue has demonstrated an ability to not only craft and develop an idea into strong brand identity but then weave that brand into a styled companion digital roll out & animation, all of which have become highly transferable skills when working in industry." Also the opportunity "offered me the chance… [to] learn things in industries that I have no knowledge of at all. I would recommend it to anyone not only as a confidence-building experience but also the chance to pursue an idea or concept that you wouldn't otherwise get the opportunity to even look at."

Experiential Learning in Context

Three of the participants from the Blue Bin team continued with the project for six months after the proof of concept and submitted Project Blue—as it became known—for the Morpheus Prize in the European Universities and Graduate School Championship. This involved creating a business plan, branding campaign, and further market research to support the proof of concept. Since not all the team was able to participate in this event, the team had to negotiate an intellectual property agreement between the members to enable the project to progress. This demonstrated key skills required within the entrepreneurial context as all the team demonstrated maturity in the business negotiations. The three team members who continued with the project were interviewed 12 months after the initial 24-hour design challenge to determine the value and impact of interdisciplinary challenge-led learning in the context of experiential learning. A snapshot of their collective experiences was captured and contextualised with the four stages of Kolb's experiential learning cycle: concrete experience, reflective observation, abstract conceptualisation, and active experimentation.

Concrete experience—All three students reported learning value; however, the drivers for getting involved initially were different. One participant commented: "It is a good chance to get to know people…you could meet someone you have nothing in common with at all, but you get on with them really well." Another stated: "The 24-hour challenge provides a real world working environment on campus. Working with a team of like-minded students on an industry brief under tight time constraints was something in the run-up to placement I was eager to be involved in." There were some similarities in relation to feelings of apprehension and the recognition of a safe environment for risk-taking combined with the delight of discovery. One stated: "I thought if I do mess up and I am out of my depth, well I can do it and I will come back and just carry on studying" and "this is something that I had no idea what I was doing." The participants related different strategies for approaching the task: "You had to figure out who was best at what. We had a structured team [different disciplines]," "the only challenge was when we came to the next stage after the challenge, we had a lot of skills in one area." Yet they demonstrated extreme resourcefulness in their approach. One stated: "I never

knew about half of the facilities we had [at university], and I learned that through the people I met… so many different things and so many opportunities and I had no idea."

Upon "reflective observation," all the participants commented on the value of networking and learning from others: "Even… he had been down the hall from me for the last two years and I never met him," "I experienced a fast-paced working environment with potential to deliver a project that's not limited by your own particular skill set giving you the opportunity to learn and develop from other people's experience." One participant commented: "One of the key things I learned was that it was alright not to know it/things." "I actually learned a lot about not just working with people who don't know what engineering is and how it works, but also how engineering works myself – learning-by-doing, and that it is alright not to know." There was a support element and empathy to assist others: "One thing I learnt in particular was to understand people's weaknesses and to let them try and overcome them." There was a strong acknowledgement that challenge-led learning underpinned the real-world environment: "I've found that when talking to employers outside of university they're much more interested in the value of challenges like this, rather than seeing a normal academic project." "So among many employable skills learnt on the challenges, team work to me was the most important." "Learning how to work with people better, because everyone says I find group work frustrating and try not to do group work. Yes, group work is frustrating sometimes and I wouldn't want to do this as part of my degree but I feel that doing this as an extra curricula activity, it does have its benefits because you learn how to work with people before you go into employment and you learn a lot from your mistakes with working with people."

When evaluating the experience "abstract conceptualisation," the participants commented on the learning environment and its impact. "I grew as a person. It is a different learning experience than we experience on our course, you are completely outside your comfort zone," and "The challenges however, light the fire beneath you and really force you to make critical decisions on the fly to create the very best work in such a small amount of time." "I …[now] consider everything, the way I dress and the way I speak to people and it might be you only meet someone once, but in five years' time they might be really important to your

future. I definitely see more opportunities." "You learn a lot of how to deal with people and being able to work with people from very different disciplines than what you are working in. It is a very employable skill as well, it is so useful. You are learning how to do this before you go into employment."

The biggest impact for learning from the 24-hour interdisciplinary challenge was within the "active experimentation" stage, and how students saw this experience enhances future learning. "I will take a lot of confidence and patience [away with me], if you don't know something it doesn't mean you're never going to know it, you just need time to understand it." "I have definitely committed a lot more of my time to do things I always wanted to do, but never done before. The experience of the challenge and after, has given me the confidence to do this, whether that's interacting with my team, presenting to an audience, or simply putting my head down and getting the job done. The 24-hour challenges manage to wrap all three of these elements up into just one day of work which is in a nutshell what makes them massively valuable to the students" and "I feel I could do something more complicated [in my final year] after doing this than I would have been able to do before the project." Skills of lifelong learning were demonstrated—"I learnt a lot of lessons… [such as] not to let things get to me too much, I am a person that wants to do my best, some of the things I do like: [such as:] work[ing] late into the evenings, I feel like I have learnt to let go a bit, it is alright to have down time. I have learnt to trust other people."

Conclusion

The ICE project is presented as a blueprint for innovation in experiential learning and demonstrates the value of learning by doing through interdisciplinary wicked design-led challenges. It was found that by placing students in interdisciplinary challenge-led learning scenarios, skills associated with commercial awareness were developed such as problem solving, teamwork, self-awareness, interpersonal communication, resilience, and confidence to work in unfamiliar environments. These skills were not only developed, there was an acknowledgement of their development by the students involved. This demonstrates the value and impact of learning by

doing and learning through reflection on doing the key elements of experiential learning in practice. There is much literature supporting the value of providing experiences within HE which use collaboration, live briefs, and problem solving as a mechanism for enhancing learning, employability, enterprise, and entrepreneurial development. However, this project brings together opportunities to co-create knowledge through forming interdisciplinary learning communities and knowledge exchanges and captures the students' perspective in terms of the perceived value and impact of this experience. Students who participated in the challenge denoted a pleasurable experience, and comments can be assimilated to show appreciation of working outside their comfort zone, both initially after the event and upon reflection many months after the initial experience. Throughout the feedback and student comments, resilience and confidence building were developed and demonstrated. Stress and pressure were linked to positive learning values, and there was a realisation that this style of learning (challenge-led learning) will benefit them in their careers, both in terms of skills but also in terms of their extended professional networks. Students who undertook the challenge reported engaging with more opportunities for learning than they potentially would have done.

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References

AGR. (2016). *Association of graduate recruiters annual survey*. Source. http://www.justoncampus.co.uk/reports/2016-agr-annual-survey/. Accessed on this date – June 2016.

BIS. (2016). *Success as a knowledge based economy: Teaching excellence, social mobility and student choice* (pp. 1–85). Department for Business, Innovation and Skills, UK Crown copyright.

Breunig, M. C. (2009). Teaching Dewey's experience and education experientially. In B. Stremba & C. A. Bisson (Eds.), *Teaching adventure education theory: Best practices* (p. 122). Champaign: Human Kinetics. isbn:9780736071260.

DC. (2015). *Design council celebrating 70 years, design council*. Source. http://www.designcouncil.org.uk/about-us/celebrating-70-years. Accessed on this date – May 2015.

De Hei, M. S. A., Strijbos, J., Sjoer, E., & Admiraal, W. (2015). Collaborative learning in higher education: Lecturers' practices and beliefs. *Research Papers in Education, 30*(2), 232–247.

DIUS. (2008). *A new 'university challenge'* (pp. 1–20). Department for Innovation, Universities and Skills. UK: Crown Copyright.

E. J. Power & J. Handley. (2017). A best-practice model for integrating interdisciplinarity into the higher education student experience. *Studies in Higher Education*. https://doi.org/10.1080/03075079.2017.1389876

Jordan, M. E., Robert, C. K., & Mary, F. R. (2014). Wicked problems: Inescapable wickedity. *Journal of Education for Teaching, 40*(4), 415–430.

Kolb, D. (1984). *Experiential learning: Experience as the source of learning and development*. Englewood Cliffs: Prentice-Hall.

Marcketti, S. B., & Karpova, E. E. (2014). Getting ready for the real world: Student perspectives on bringing industry collaboration into the classroom. *Journal of Family and Consumer Science, 104*(1), 27–31.

McLeish, T., & Strang, V. (2014). *Leading interdisciplinary research: Transforming the academic landscape*. London: Leadership Foundation for Higher Education.

Power, E. J. (2010). Devising a product development curriculum to promote industry ready apparel graduates. In *The Textile Institute Centenary Conference, Manchester UK*.

QAA. (2012, September). *Enterprise and entrepreneurship education: Guidance for UK HE providers*. The Quality Assurance Agency for HE2012. ISBN 978 1 84979 692 7 – Source. http://www.qaa.ac.uk/en/Publications/Documents/enterprise-entrepreneurship-guidance.pdf

RAE. (2012). *Educating engineers to drive the innovation economy* (pp. 1–30). The Royal Academy of Engineering. Source. http://www.raeng.org.uk/publications/reports/innovation-economy-2012

Stember, M. (1991). Advancing the social sciences through the interdisciplinary enterprise. *The Social Science Journal, 28*(1), 1–14.

7

A Holistic Approach to the Delivery of Effective Enterprise Education

Veronica Scuotto and Alan Murray

Introduction

For some time research has been focused on the dilemma of entrepreneurship based on the nature or nurture effect (White et al. 2007; Jones and English 2004). Some studies emphasise the personal traits of individuals (Davidson 1995; Brockhaus 1980, 1982; McClelland 1961) whilst other scholars highlight environmental factors as the elements that drive the decision to become an entrepreneur (Gartner 1985; Van de Ven et al. 1984). More recently others sought to describe the attitude to become entrepreneurs as a combination of nature and nurture (Katz and Shepherd 2003; Mitchell et al. 2002). In line with this view, universities began to develop new entrepreneurial programmes (Gorman et al. 1997;

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Young 1997) followed by primary and secondary educators. Here it was noted that students demonstrated a clear interest in participating in entrepreneurial education activities (Donckels 1991; Gasse 1985; Kourilsky 1995). Subsequently it soon became apparent that individuals could be trained to nurture their entrepreneurial attitude from childhood (Filion 1994; Gasse 1985).

The benefits of university-based entrepreneurship have been extolled (Gorman et al. 1997; Donckels 1991; Kantor 1988; Krueger and Brazeal 1994), but few studies describe the best approach to foster this entrepreneurial attitude in students (Brush 2012, Scuotto and Morelatto 2013; Del Giudice et al. 2014).

The challenge of aligning academic milestones with industry expectations calls for the creation of an internal entrepreneurship education ecosystem which combines theoretical frameworks and technical skills. Brush (2012) declares that there are three key areas which combine to make up such an ecosystem, namely, curriculum, co-curriculum and research, and that the role of the local community must also be considered in order to offer the best entrepreneurial experience possible.

There is however still a need to explore and individuate the best practice of university-based entrepreneurship (Gibb and Cotton 1998) in relation to the current digital era. Therefore this chapter aims to describe an approach to effective teaching within an entrepreneurship education ecosystem through a single-case study focusing on how the University of the West of Scotland has developed a new and innovative entrepreneurial education model supported by empirical data drawn from Module Evaluation Questionnaires (MEQs) for a sample of 640 students undertaking a core enterprise module.

University-Based Entrepreneurship: A New Innovative Model

General education does not spur entrepreneurial attitude (Timmons 1994); however entrepreneurial programmes do aim to encourage such attitudes. A formal education tends to stimulate a “take-a-job” mentality

rather than supporting and developing creativity and entrepreneurial behaviours. For this reason, an increasing number of universities are embracing enterprise programmes to form new entrepreneurs. The university becomes the venue for entrepreneurship where theories meet practice, integrating interactive learning approaches and practice-based learning (Peterman and Jessica Kennedy 2003). Some studies have offered evidence of the efficacy of entrepreneurial programmes in forging new entrepreneurs (Dainow 1986; Gorman 1997; McMullan et al. 2001). University-based entrepreneurship thus becomes a relevant external factor which spurs entrepreneurship within the ecosystem. It provides learning experiences which stimulate "appetite" in student entrepreneurs (Dyer 1994; Kram 1983; Shapero and Sokol 1982). Recently increasing attention has been paid to this educational experience (Peterman and Kennedy 2003; Gibb 1993) introducing different approaches to enterprise education such as work-related learning (Dwerryhouse 2001), the action-learning approach and reflective practice (Revans 1991; Jones-Evans et al. 2000; Smith 2001), experiential learning (Kolb 2014) and entrepreneurial education (Gibb 2002).

Peterman and Kennedy (2003) demonstrated that students are motivated to undertake entrepreneurial programmes due to future career aspirations. These aspirations can be developed by the environment and infrastructure which supports the learning experiences (Shapiro 1982). In terms of delivery, enterprise programmes should seek to exceed students' expectations. A key objective of enterprise education is the exposure of the student to the entrepreneurial world (Gorman et al. 1997; Rajecki 1990) through interventions such as business and enterprise events, meeting with entrepreneurs and workshops. Entrepreneurial educational programmes should aim to create independent workers who are capable of either starting their own business or adding value to any organisation which employs them (Hytti and O'Gorman 2004).

Through the practice-based approach, students develop the cognitive skills (Toohey 1999) needed to analyse real-world situations. Students memorise new knowledge and develop critical thinking through *experiential learning*, in line with the theories of Kolb (2014).

Therefore, the entrepreneurship education ecosystem represents an opportunity to:

- Provide a valuable USP for the institution by encouraging student business and enterprise activity.
- Increase commercial revenue for the institution by identifying and securing a broad range of specialist consultancy work.
- Add to the teaching expertise of the institution, and ensure programmes remain aligned to industry by being receptive and responsive to the needs of the employer.
- Establish mutually beneficial links with business at all levels by supporting the efforts of key strategic partners to ensure greater connectivity with the wider community.
- Create opportunities for students to work with real businesses and organisations in order to gain valuable and relevant experience and improve employability rates.
- Develop links with a broad range of secondary and further education providers in an outreach role to build awareness of the institution in order to attract students.

A Proposed, New Entrepreneurial Education Model in the UK Ecosystem

In the UK, enterprise culture and self-employment were staunchly promoted during the Thatcher administration as an alternative approach to Keynesian welfare (Peters 2009), and enterprise now stands as a central theme in industrial and educational policy (Hytti and O'Gorman 2004).

The rationale for promoting enterprise in a university context is to develop within the student the qualities, skills, attitudes, aptitude and behaviours which they will need in the market (Neck and Greene 2011) such as management skills, leadership, confidence, motivation, communication, organisational and social, digital and technical skills and creative confidence. Within higher education, enterprise is generally delivered in one of three ways (Brush 2012):

1. Enterprise activities and opportunities are delivered by a dedicated team, centre or department within the university.

2. Enterprise is formally embedded within the curriculum as either a dedicated enterprise programme or module.
3. Enterprise is delivered through a combination of approaches 1 and 2.

Given these three approaches, the authors seek to suggest a novel educational framework based on the intertwining of four key elements: (1) research, (2) teaching, (3) international and (4) enterprise activities. By applying this model, the enterprise educator proactively seeks to identify and develop opportunities in the form of projects, programmes or initiatives which are capable of producing outputs in at least two of these four key spheres identified, but ideally any activity should be capable of yielding tangible outputs in all four areas.

1. & 2. Research-Teaching Nexus

Research inspires education and provides insight on the real-world problems and challenges scholars and students to discover solutions. Research also exposes students to knowledge (Leiden University 2004; Elsen et al. 2009). With this in mind, some scholars introduced the concept of research-teaching nexus (Jensen 1988; Neuman 1992; Jenkins et al. 2003; Elsen et al. 2009; Griffith 2004) declaring that students should be aware of current studies and scholars should inspire them with their research interests. This could generate new researchers or possibly inspire new job careers.

Research-teaching nexus emerges from the adoption of teaching practices like teaching case studies. At the University of the West of Scotland, this teaching practice is principally used because it helps to connect students to the real-world situations.

It also offers a better engagement and interactive learning experience. Teaching case studies evokes an inductive approach where students are immersed in the real world from which they can extract theories. Students start to familiarise themselves with academic studies during their first year in the university. Furthermore if a scholar incorporates his/her teaching case studies into their lesson, students will acknowledge their "educator" appears enthusiastic about the topic delivered (Jenkins et al. 2003).

Neumann (1992) defines research-teaching nexus as a tangible connection where students acquire knowledge through updated research. Research also contributes to international activities reflecting academics' research strengths to global partners.

In the example of University of the West of Scotland, opportunities to embed research published by the teaching staff in the classroom are actively sought. Examples of this include the Business Model Canvas applied to real-life local businesses and mini case studies focusing on businesses the teaching team have personally worked with in industry. This contextualises the learning for the student and provides insight, knowledge and skills that they can apply to the real world and place value on as the qualitative data highlights:

> "Interesting Module linked to real life situations. Classes aren't boring, kept captivated."
>
> "The Module provided valuable experience and information and allowed me to put practical skills to use from my academic learning."
>
> "Interesting and can easily be applied in real life."
>
> "Fast-paced, practical future application."

This approach aims to provide a mutual setting for research (knowledge advance) and teaching (the education for practitioners) (Griffiths 2004). It adopts a practice—knowledge-oriented position where academics collaborate closely with practitioners (e.g. students and workers) in order to discover the best practices in generating a nexus of teaching and research leading to consultancy projects. They may create a new advanced knowledge together through "inquiry-based activities". It evokes a teaching research-based approach which employs an inquisitive teaching-learning approach which can be developed into a multidisciplinary research and consultancy programme working with partners from across the private, public and third sectors.

This resonates with Sir Walport's UKRI programme (2017) which advocates the strategic integration of differential expertise for holistic outputs to intertwine research and teaching and embed them in the real industrial system so as to succeed in the research excellence framework (REF) and teaching excellence framework (TEF). An example of this

involves the contextualisation of assessment where students will work with the institutions' industrial practitioners' network to develop mutually beneficial assessments that will focus on areas such as (a) solving a problem, (b) enhancing/developing a product and/or (c) initiating a new service practice/arrangement. This echoes with the aims of the Quality Assurance Agency for Higher Education (QAA), and consequently this new approach will nurture the entrepreneurial mindset of new entrepreneurs and will equip industry with advanced skills and abilities which will transport and adjust the local communities in the new digital era.

3. International Activities

By assuming that educators create pedagogic pathways for students through their research, we believe that international activities are another relevant aspect of the entrepreneurship education ecosystem which disseminates research specialities and teaching practices around the globe.

According to Altbach and Knight (2007), from a teaching perspective, international activities allow students to study abroad, enhance foreign language learning programme and offer a cross-culture experience. Whereas from a research perspective, they spur international projects and generate a dynamic academic mobility. Academic international activities can be offered in the form of cross-border supply which regards distance learning and franchising courses, consumption abroad which refers to students' mobility (e.g. Erasmus mobility), commercial presence which is based on the development of new branches or joint ventures with universities in another country and finally the presence of an educator in the host university (Organisation for Economic Co-operation and Development 2004; Siaya and Hayward 2003; Huisman and van der Wende 2005; National Education Association 2004). In the specific case of the University of the West of Scotland, all the aforementioned activities take place with students and staff heading in both directions to countries such as Malaysia, Beijing, Singapore, Maldives, Seychelles, France, Germany and Italy, for example.

The University of the West of Scotland aims to offer a dynamic and interactive international entrepreneurial experience. For instance, in 2016 five students had the chance to participate an international business

venture boot camp in Italy for two weeks. This two-week student mobility took place in Italy, organised by the University of Naples Federico II (Italy) and Stevens Institute of Technology (USA). It was hosted by the University of Naples Federico II in Naples (Italy). Here students from the University of the West of Scotland were intermingled with undergraduate students from the graduate school—Instituto Tecnologico de Estudios Superiores de Monterrey Campus Guadalajara (Mexico), the School of Systems and Enterprises— Steven Institute of Technology (USA), the University of Arkansas (USA), and the Department of Industrial Engineering of the University of Naples Federico II (Italy). Such international study was intended to better prepare those students to assume significant roles in an increasingly global economy and interdependent world. Studying abroad has obvious benefits such as providing understanding and appreciation for other cultures and perspectives.

4. Enterprise Activities

A key success factor for the development of an effective entrepreneurship education system is the development of key strategic partnerships within the wider enterprise network. There is already an extensive network of individuals, agencies and organisations with a vested interest in enterprise who could potentially add value to a university offering. It is however important to recognise, particularly in a challenging economic climate, that each of these potential partners will have their own agenda and will also be facing a range of specific challenges which could impact on the core objectives of the university. In order to develop these key contacts, there will be a requirement to invest time in forming and maintaining these relationships through ongoing networking activity. This will be particularly intensive in the early stage of the project. The potential benefits however are obvious, and the most effective approach would be to develop a number of key strategic partnerships which would make more effective use of available resources. This approach can also reduce duplication and encourage the development of referral channels through strategic partnerships with key players in order to enhance the curricular student experience. This will also create co-curricular enterprise opportunities for students such as entry to award programmes, industry speakers, enterprise

professionals judging student presentations and delivering guest lectures and signposting to key enterprise agencies. In this context, enterprise challenges, business societies and enterprise events need to be embedded within the learning journey. For instance, central to the development of an entrepreneurship education system is the creation of a structured calendar of co-curricular enterprise events run by the university and external partners such as Business Breakfast Clubs, Meet the Entrepreneur events, visits to business incubators and so on. These events take place out of the classroom environment but should support and validate the curricular entrepreneurial learning allowing the student to form meaningful attachments with industry to develop their entrepreneurial learning whilst also creating personal and professional networks which will improve employability prospects. By adopting this approach, the student is able to transfer the learning to real life and the workplace as can be seen here:

> "Interesting way of putting theoretical knowledge into practice."
>
> "So challenging and interactive. Applying all University Modules into this. Lecturer is great."
>
> "Content was interesting and current. Very enjoyable Module. Very relevant to real life."

A Real Case of Entrepreneurial Education: The "Enterprise Creation" Module at the University of the West of Scotland

As discussed teaching, research, international activities and enterprise are interconnected and play a critical role in the delivery of effective enterprise education. In particular, the present case study has been deeply investigated, offering a new pedagogical approach which empowers and enables an interactive student-centric educational experience. Content is hosted through a flexible virtual learning platform which is visual and vibrant and which allows staff to customise and communicate learning to their field, industry and the expectations of students. In line with this, the authors propose a model for the key teaching focus within an entrepreneurship education ecosystem which encompasses three key

spheres: (1) content, (2) delivery and (3) environment. Each of the three spheres is critical in order to make optimum use of transformational digital technologies, immersive teaching styles, engaging physical and digital teaching and learning spaces and teaching material which is aligned to industry. These three spheres were deeply investigated by the application of Module Evaluation Questionnaires (MEQs) issued to over 600 undergraduate students undertaking SCQF (Scottish Funding Council) Level 9 (third year) of the Enterprise Creation module. This module is core to a number of programmes within the School of Business and Enterprise at University of the West of Scotland. In the study Enterprise Creation was delivered to 638 students in a single trimester which involved 25 classes per week taught over 15 weeks and delivered across 5 campuses. The module achieved an overall student satisfaction rating of 93%.

The data were collected over a period of a single academic year (i.e. 2016/2017) and reported in the form of direct quotes. The central aim of Enterprise Creation is to develop confident, enterprising and creative graduates who will be able to cope with the ever-changing business environment whilst recognising opportunities and taking responsibilities and measured risks when required. This will help to stimulate enterprise and encourage individuals to consider self-employment and just as importantly to develop themselves as an enterprising employee who can contribute to the success of any organisation in which they may come to work. Enterprise Creation is a practical module which has been designed to give students a unique and engaging opportunity to apply and develop underpinning business knowledge and skills through the experience of the business start-up phase of a business venture or the development of a new product or service for an existing business.

Module Content

The approach applied successfully in Enterprise Creation allows the educator to tailor the conceptual content to the issues the students are facing for each individual project. This kind of method involves either emotional reactions or critical incidents. The emotions strengthen the memory of situations encountered (Schacter 1996) while critical incidents, based on the work of Flanagan (1954), challenge existing frames of reference by

flying in the face of students' assumptions of "what should be". So this approach triggers students' higher level learning, shaping their frames of reference. The critical incidents are likely to challenge the textbook knowledge they have of business situations, adding a deep degree of complexity to these. The fact that they have the conceptual knowledge to begin with means that they have a basic "structure" to which they can attach new knowledge, as explained by the notion of absorptive capacity (Cohen and Levinthal 1990). Case study discussion is intended to create a problem-based learning environment (Toohey 1999). These techniques have been found to improve learning in general and the application of theory to practice in particular (Huey 2001). They are also useful to measure students' learning performance based on the following:

1. Whether any student is already familiar with theoretical concepts (gauging existing knowledge)
2. Whether concepts are clear (checking understanding)
3. How they think concepts apply to reality (critical thinking)

Based on these three areas, the educator introduces core concepts using multimedia methods such as videos, images, vodcasts and so on. These techniques appear to increase students' interest in the topic as well as make the learning process come alive. The use of audio-visual material also develops students' memories. In fact, it has been demonstrated that the involvement of more than one sense during an event makes the memory of the event imprinted more firmly in mind (based on Allan Paivio's dual coding theory, Paivio 1971).

From mere acquisition of knowledge to being able to apply theories to real situations (Bloom 1964), the researcher debates case studies with students. The students receive these case studies in advance. In this way they will have time to study them in conjunction with the relevant theory or concept (Bloom 1964). However teaching content does not flow solely from the lecturer and the literature, and student experiences are also embraced in the practitioners' world. Hence taking into consideration Kolb's cycle, students are allowed to experience the situation first-hand by having meetings with the business owner or reading various case studies or testing their business ideas through tutorials.

This leads students to learn through sense-making and abstraction, which they can then use as a base to progress their ideas using a consultancy approach. This involves experimenting with new potentially relevant applications of theories to the real case being investigated. In this way students are expected to work out on problems identifying information that will help them solve the dilemma. This is what Seifert et al. (1994) call the "opportunistic assimilation" perspective. Such a perspective involves delivering conceptual information to students as the need for this emerges and the student can appreciate the relevance more readily whilst valuing the new knowledge and insight as we can see here:

"Content of Module was interesting and stimulating."

"Fantastic lecturers using great examples. Have thoroughly enjoyed this Module."

"Ideas are well explained and I have grasped new concepts in this Module."

Also, students are encouraged to actively participate in the classroom, starting by asking them simple questions and building their confidence over time. According to Auster and Wylie (2006, p. 348) "using key provocative questions to guide class participation provides the parameters for a manageable, focused discussion and prevents [a] random, wandering class discussion". Hence an educator structures the lesson like a series of "interactive windows" (Huxham 2005). Generally speaking "interactive windows" are intended to be portions of the class where students have the opportunity to discuss critically the topics addressed during the lectures. This seems the best way to emphasise a common link amongst these interactive windows so as to develop a flowing and multilayered argument about the subject being discussed. In addition to this, students can be provided with interesting readings before the lesson to discuss and compare different points of view (Brown and Atkins 1988). This goes towards fostering the critical thinking skills that are paramount in university. In this way, educators are able to support their knowledge assimilation as well as to develop critical understanding (Bloom 1964), and once again the benefits to the student of this approach are clear:

"Most I've learnt or had an interest in in 3 years."

"Best class I've had this year."

"Favourite class. Engaging and stimulating."

Module Delivery

It is important to recognise the importance of content and delivery in the role of effective enterprise education. Here we deem content to mean the teaching material and any supporting materials. Delivery encompasses both the teaching style and the approach. The data provided from this study illustrates how different combinations of relevant/irrelevant content and delivery impact on student understanding. From the evaluation of student comments of a longer period, it can be said that bad content plus boring delivery equals consistently low satisfaction levels whilst good content plus boring delivery equals inconsistency and variable satisfaction levels. Bad content plus engaging delivery also achieve a similar result with inconsistency and variable satisfaction levels noted, but unsurprisingly good content plus engaging delivery equals consistently high satisfaction levels as can be seen from the results of the study.

"Lecturers have provided some of the best teaching I have had since joining the University."

"Very good and engaging lecturer. Enjoyed the assignment and overall Module."

"Lecturer was fantastic at presenting and explaining during classes. Everyone was involved."

"Lecturer has made the class really interesting which has generally kept me connected meaning I have learnt more in this class than others this trimester."

Module Environment: Physical and Digital Spaces

The final model proposed by the authors relates to the key focus of the learning environment within an entrepreneurship education ecosystem, and here there are two key spheres to consider: the physical and the digital

environment. As enterprise educators, in order to create an educational experience which is fit for the twenty-first century, we must create an environment where physical and digital spaces converge with live industrial practice, skill development and innovation, collaborative professional development and research. This requires the development of flexible, physical teaching spaces which are also equipped to enable users to create, curate and share digital material on any device. This allows stakeholders to embrace an age of acceleration where digital working and social learning are essential to engage an increasingly digital consumer. Equal importance should be placed on the selection and development of virtual learning spaces to ensure that the platforms being used are visually engaging with wider global communities for future entrepreneurial and enterprise activity.

An important element which supports effective teaching and learning is the learning environment itself which should be viewed in the context of both physical and digital spaces. The physical space is not just the classroom but also the wider spaces where teaching and learning may take place both within and out of the university. These spaces should be vibrant, flexible and fully equipped to interact with the digital space. The digital space refers to the virtual learning platform employed by the institution which allows the student to access a range of materials which support their learning and also the vast range of technologies which have the potential to transform the educational experience. In order to be both effective and engaging, enterprise educators should seek to operate where the physical and digital spaces converge. When this convergence can be achieved, the quality of student learning is greatly enhanced.

"Dynamic, interesting, useful material which was easy to access online."

"Great classroom, actually helped me to learn."

"Overall layout and structure of the Module is well organised. The modern classroom was great for workshops and group work."

Discussion and Conclusion

As the qualitative data shows, the module received very good feedback about the module and how interactive it is.

The overall student satisfaction ratings for the academic year sampled are extremely high and the feedback is very consistent. From the student comments, examples of best practice can clearly be identified around delivery, content and spaces and also relating to the structure and organisation of the module itself. Having taken feedback from previous years where a different approach was applied, the following steps were taken to address issues; firstly a new teaching team was put in place made up of the most effective lecturing staff with experience of the module augmented by a team of new but experienced enterprise practitioners drawn from industry. In addition the virtual learning environment (VLE) was developed to incorporate more digital learning materials which enhanced student engagement both in the VLE and in class. Where possible, classroom activities were physically moved to the active learning studios; these modern, vibrant and digitally supported classrooms are designed to facilitate enterprising education. Class sizes were also capped at 35 which helped to create closer relationships between students and staff. The result was a dramatic improvement in consistency in terms of the student experience as can be seen from the data. This new teaching approach is in line with Paivio's dual coding theory (1971). Here students are able to memorise theoretical knowledge and apply them during the tutorial. The content becomes more flexible and enables the educators to customise the learning journey to the market demand. For example, the experienced enterprise practitioners supported academic educators to immerse students in the real-world situations. This involves emotional reactions (Schacter 1996) and new challenges (Flanagan 1954). As declared by Toohey (1999) and Huey (2001), the scope of a new learning environment and new "practitioner-educators" improved the learning in general and the application of theory to practice in particular.

In sum, the Enterprise Creation module measures students' learning performance focusing on (1) gauging existing knowledge, (2) checking understanding and (3) critical thinking. In this way students are able to practise the real life of applying their acquired knowledge (Bloom 1964).

However clearly policy and procedural barriers within the institution can limit the scope to identify and develop opportunities and can create challenges around interdepartmental activities. Lack of support for projects from internal decision makers and external stakeholders can also

create barriers and challenges which must be addressed. Another concern is the danger of a lack of adequate resources being allocated by the institution, for example, staff time, funding, equipment, which can often lead to demand for services outstripping capacity. This can be exacerbated by a failure to set and achieve meaningful SMART (i.e. specific, measurable, achievable, realistic and timely) targets which can be used to monitor impact and provide a basis for measure what resources are needed. This is essential in order to minimise the risk of reputational damage to the institution from failure to meet internal and external clients' expectations which can, if left unchecked, create a misalignment between the institution and the market.

References

Altbach, P. G., & Knight, J. (2007). The internationalization of higher education: Motivations and realities. *Journal of Studies in International Education, 11*(3–4), 290–305.

Auster, E. R., & Wylie, K. K. (2006). Creating active learning in the classroom: A systematic approach. *Journal of Management Education, 30*(2), 333–353.

Brockhaus, R. H. (1980). Psychological and environmental factors which distinguish the successful from the unsuccessful entrepreneur: A longitudinal study. In *Academy of Management Proceedings* (pp. 368–372). Briarcliff Manor: Academy of management.

Brockhaus, R. H. (1982). The psychology of the entrepreneur. In C. A. Kent, D. L. Sexton, & K. H. Vesper (Eds.), *Encyclopedia of entrepreneurship* (pp. 39–57). Englewood Cliffs: Prentice-Hall.

Brown, G., & Atkins, M. (1988). *Effective teaching in higher education*. London: Methuen.

Brush, C. (2012). *Note on internal entrepreneurship education ecosystems*. Boston: Babson College.

Cohen, W. M., & Levinthal, D. A. (1990). Absorptive capacity: A new perspective on learning and innovation. *Administrative Science Quarterly, 35*, 128–152.

Dainow, R. (2013). Training and education of entrepreneurs: The current state of the literature. *Journal of Small Business & Entrepreneurship, 3*(4), 10–23.

Davidson, J. E. (1995). The suddenness of insight. In R. J. Sternberg & J. E. Davidson (Eds.), *The nature of insight* (pp. 125–155). Cambridge, MA: MIT Press.

Del Giudice, M., Peruta, D., & Scuotto, V. (2014). Student entrepreneurship, creativity and success. How much does knowledge heterogeneity really matter? *International Journal of Entrepreneurship and Innovation Management, 18*(1), 45–58. https://doi.org/10.1504/IJEIM.2014.062789.

Donckels, R. (1991). Education and entrepreneurship experiences from secondary and university education in Belgium. *Journal of Small Business & Entrepreneurship, 9*(1), 35–42.

Dwerryhouse, R. (2001). Real work in the 16–19 curriculum: AVCE business and young enterprise. *Education + Training, 43*(3), 153–162.

Dyer, W. G. (1994). Potential contributions of organizational behavior to the study of family-owned businesses. *Family Business Review, 7*(2), 109–131.

Filion, L. J. (1994). Ten steps to entrepreneurial teaching. *Journal of Small Business & Entrepreneurship, 11*(3), 68–78.

Flanagan, J. C. (1954). The critical incident technique. *Psychological Bulletin, 51*(July), 327–358.

Gartner, W. B. (1988). "Who is an entrepreneur?" Is the wrong question. *American Journal of Small Business, 12*(4), 11–32.

Gasse, Y. (1985). *A strategy for the promotion and identification of potential entrepreneurs at the secondary school level* (pp. 538–559). Wellesley: FER, Babson College.

Gibb, A. A. (1993). Enterprise culture and education: Understanding enterprise education and its links with small business, entrepreneurship and wider educational goals. *International Small Business Journal, 11*(3), 11–34.

Gibb, A. (2002). Creating conducive environments for learning and entrepreneurship: Living with, dealing with, creating and enjoying uncertainty and complexity. *Industry and Higher Education, 16*(3), 135–148.

Gibb, A., & Cotton, J. (1998, December). *Work futures and the role of entrepreneurship and enterprise in schools and further education*. In Background keynote paper to the Creating the Leading Edge Conference.

Gorman, G. (1997). Some research perspectives on entrepreneurship education, entreprise education and education for small business management: A ten-year literature review. *International Small Business Journal, 15*(3), 56–77.

Gorman, G., Hanlon, D., & King, W. (1997). Some research perspectives on entrepreneurship education, enterprise education and education for small business management: A ten-year literature review. *International Small Business Journal, 15*(3), 56–77.

Huisman, J., & van der Wende, M. (Eds.). (2005). *On cooperation and competition II: Institutional responses to internationalization, Europeanization, and globalization*. Bonn: Lemmens Verlag.

Huxham, M. (2005). Learning in lectures. Do 'interactive windows' help? *Active Learning in Higher Education, 6*(1), 17–31.

Hytti, U., & O'Gorman, C. (2004). What is "enterprise education"? An analysis of the objectives and methods of enterprise education programmes in four European countries. *Education + Training, 46*(1), 11–23.

Jenkins, A., Breen, R., & Lindsay, R. (2003). *Reshaping teaching in higher education, linking teaching with research*. London: Kogan Page Limited.

Jensen, J. (1988). Research and teaching in the universities of Denmark – Does such an interplay really exist. *Higher Education, 17*(1), 17–26.

Jones, C., & English, J. (2004). A contemporary approach to entrepreneurship education. *Education+ Training, 46*(8/9), 416–423.

Jones-Evans, D., Williams, W., & Deacon, J. (2000). Developing entrepreneurial graduates: An action-learning approach. *Education+ Training, 42*(4/5), 282–288.

Kantor, J. (1988). Can entrepreneurship be taught?: A Canadian experiment. *Journal of Small Business & Entrepreneurship, 5*(4), 12–19.

Katz, J. A., & Shepherd, D. A. (2003). Cognitive approaches to entrepreneurship research. In *Cognitive approaches to entrepreneurship research* (pp. 1–10). Bingley: Emerald Group Publishing Limited.

Kolb, D. A. (2014). *Experiential learning: Experience as the source of learning and development*. New Jersey: FT press.

Kourilsky, M. L. (1995). *Entrepreneurship education: Opportunity in search of curriculum*.

Kram, K. E. (1983). Phases of the mentor relationship. *Academy of Management Journal, 26*, 608–625.

Krueger Jr, N. F., & Brazeal, D. V. (1994). Entrepreneurial potential and potential entrepreneurs. *Entrepreneurship Theory and Practice, 18*(3), 91–104.

Leiden University. (2004). *Kiezen voor talent* [Focusing on talent]. Leiden: Leiden University.

McClelland, D. C. (1965). N achievement and entrepreneurship: A longitudinal study. *Journal of Personality and Social Psychology, 1*(4), 389.

McMullan, E., Chrisman, J. J., & Vesper, K. (2001). Some problems in using subjective measures of effectiveness to evaluate entrepreneurial assistance programs. *Entrepreneurship Theory and Practice, 26*(1), 37–54.

Mitchell, R. K., Busenitz, L., Lant, T., McDougall, P. P., Morse, E. A., & Smith, J. B. (2002). Toward a theory of entrepreneurial cognition: Rethinking the people side of entrepreneurship research. *Entrepreneurship Theory and Practice, 27*(2), 93–104.

National Education Association. (2004). *Higher education and international trade agreements: An examination of the threats and promises of globalization*. Washington, DC: Author.

Neck, H. M., & Greene, P. G. (2011). Entrepreneurship education: Known worlds and new Frontiers. *Journal of Small Business Management, 49*(1), 55–70.

Neumann, R. (1992). Perceptions of the teaching-research nexus: A framework for analysis. *Higher Education, 23*(2), 159–171.

Organisation for Economic Co-operation and Development. (2004). *Internationalization and trade in higher education: Opportunities and challenges*. Paris: Author.

Paivio, A. (1971). *Imagery and verbal processes*. New York: Holt, Rinehart & Winston.

Peterman, N. E., & Kennedy, J. (2003). Enterprise education: Influencing students' perceptions of entrepreneurship. *Entrepreneurship Theory and Practice, 28*(2), 129–144.

Peters, M. (2009). Education, enterprise culture and the entrepreneurial self: A Foucauldian perspective. *The Journal of Educational Enquiry, 2*(2), 58–71.

Rajecki, D. W. (1990). *Attitudes* (2nd ed.). Sunderland: Sinauer Associates.

Revans, R. (1991). The concept, origin and growth of action learning. In O. Zuber-Skerritt (Ed.), *Action learning for improved performance* (pp. 14–25). Brisbane: AEBIS Publishing.

Schacter, D. L. (1996). Illusory memories: A cognitive neuroscience perspective. *Colloquium Paper, Procedures National Academy of Sciences, 93*, 13527–13533.

Scuotto, V., & Morellato, M. (2013). Entrepreneurial knowledge and digital competence: Keys to success for student entrepreneurship. *Journal of the Knowledge Economy, 4*(3), 293–303. http://link.springer.com/article/10.1007/s13132-013-0155-6.

Seifert, C., Meyer, D., Davidson, N., Patalano, A., & Yaniv, I. (1994). Demystification of cognitive insight. In R. J. Sternberh & J. E. Davidson (Eds.), *The nature of insight*. Cambridge, MA: MIT Press.

Shapiro, H. N. (1986). Entrepreneurial concepts, definitions, and model formulations. In J. Rosen (Ed.), *Entrepreneurship* (pp. 75–99). Lexington: Lexington Books.

Shapero, A., & Sokol, L. (1982). The social dimensions of entrepreneurship. *Encyclopedia of Entrepreneurship*, 72–90.

Siaya, L., & Hayward, F. M. (2003). *Mapping internationalization on U.S. campuses*. Washington, DC: American Council on Education.

Smith, P. A. (2001). Action learning and reflective practice in project environments that are related to leadership development. *Management Learning, 32*(1), 31–48.

Timmons, J. A. (1994). *New venture creation*. Chicago: Irwin.

Toohey, S. (2000). *Designing courses for higher education*. Buckingham: SRHE and Open University Press.

Van de Ven, A. H., & Drazin, R. (1984). *The concept of fit in contingency theory* (No. SMRC-DP-19). Minneapolis: Minnesota University, Minneapolis Strategic Management Research Center.

White, R. E., Thornhill, S., & Hampson, E. (2007). A biosocial model of entrepreneurship: The combined effects of nurture and nature. *Journal of Organizational Behavior, 28*(4), 451–466.

Young, J. E. (2000). Entrepreneurship education and learning for university students and practicing entrepreneurs. *Entrepreneurship, 215*, 238.

Part II

Experiential Learning in the World of Work

8

Experiential Learning in Entrepreneurial Families: Lessons from Mexico

Mariana Estrada-Robles

Introduction

Within the field of entrepreneurial learning, there is growing recognition on the importance of experiential learning for entrepreneurial endeavours (Corbett 2005; Gibb 2002; Rae and Carswell 2001). Experience is essential to learning (Cope 2003; Kolb 1984); for entrepreneurs, it is notably important as it is action oriented or experientially based (Rae and Carswell 2001). It is highlighted that entrepreneurs learn mainly through 'learning by doing' with processes of problem solving, discovery and trial and error (Deakins and Freel 1998). This chapter contributes to the in-depth examination of experiential learning processes within the context of entrepreneurial families to understand family entrepreneurship (Heck et al. 2008; Randerson et al. 2015). The dynamics within the family present a wide opportunity to examine the ways in which members of entrepreneurial families engage in experiential learning for both the development of the

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existing family business and the creation of new firms in the family portfolio. An entrepreneurial family is defined as a family where more than one member is an owner-entrepreneur who interacts with other entrepreneurs of the same family. The family is named entrepreneurial not only for the existence of multiple businesses within but also for the entrepreneurial processes and dynamics inherent to their members who are owners or entrepreneurs. Experiential learning for entrepreneurship is explored in one case study based in Mexico with an entrepreneurial family of five members, each of them involved in a business, either the third-generation family firm or their own business, with a mix of roles in the family such as owner, entrepreneurs and potential successor (fourth generation).

The structure of this chapter is as follows. The first section summarises the wider literature on experiential learning, focusing on family firms and teams to address the entrepreneurial family. The second section provides an overview of the case study followed by the methodology employed in the third section. The next offers an in-depth analysis of the learning practices happening in the entrepreneurial family. Finally, the chapter ends with concluding remarks.

Theoretical Considerations

Experiential Learning Theory

Theories of learning involve three main categories: behavioural, cognitive and situated that form knowledge and learning in different but complementary ways (Greeno et al. 1996). Behavioural approaches focus more on the outcomes and routines, learning new skills without recognising any subjective experience in the learning process (Kolb et al. 2000). Situated learning theory emphasises social and relational contexts to entrepreneurial learning (Hamilton 2011), while cognitive learning theory tends to focus on reasoning over affect. Experiential learning theory sits between the cognitive and situated learning because individuals transform experiences into knowledge. Experiential learning relies on the concepts of thinking, feeling, doing and watching (Kolb 1984). Kolb (1984, p. 41) defines learning as 'the process whereby knowledge is created through the transformation of experience'; it occurs by extension of experiences and

ideas of the external world and internal reflection of the attributes of those experiences and ideas. In entrepreneurship, the notion of experiential learning is helpful as the entrepreneur changes his behaviour through experience (Deakins and Freel 1998). Corbett (2005) highlights that the majority of research in entrepreneurship has focused on the cognitive perspective of learning; while valuable, entrepreneurs undertake other thinking processes beyond reasoning, planning and problem solving.

Experiential learning theory is built around six propositions (Kolb and Kolb 2005): (1) learning should focus on the process, not on outcomes; (2) learning is a cyclical process with 'relearning' implications; (3) learning requires resolution of conflict and disagreement; (4) learning involves integrated functioning of thinking, feeling, doing and watching; (5) learning is a result of the transaction between the person and the environment and (6) learning involves a process of knowledge creation. Around these propositions, the concepts of grasping and transforming experience are fundamental. Some individuals grasp experience though the perception of new information by experiencing tangible features of the world with high reliance on senses, while others grasp new information through abstract conceptualisations by thinking and planning rather than relying on sensations (Kayes et al. 2005). In order for learning to be an effective process, four approaches must be incorporated. Perception of experience alone is not enough for learning, and the simple transformation is not considered learning if there is nothing to be transformed (Kolb 1984). The combinations of grasping and transforming result in a typology of learning styles which includes the accommodator, assimilator, converger and diverger.

Rather than categorical entities, learning styles are continuous positions between abstract conceptualisation with concrete experience and active experimentation with reflective observation (Kolb and Kolb 2005). The assimilator grasps experience by thinking and theorising and transforms it by reflecting and watching. The accommodator grasps by feeling and doing and then transforms the information by doing and applying. The converger grasps experience by thinking and transforms it via doing and applying, while the diverger grasps by feeling and doing and then transforms by reflecting and watching. The common factor is that the central idea is learning and therefore knowing through grasping and transformation of experiences.

Experiential learning is especially suitable in the context of entrepreneurship (Rae and Carswell 2001). While entrepreneurship education

can provide knowledge and skills for entrepreneurial development, entrepreneurial practice is learnt fundamentally experientially in business (Jack and Anderson 1999). The entrepreneur reacts to a series of events altering his behaviour depending on the stage they experience, for example, nascent, novice, mature entrepreneurs (Deakins and Freel 1998).

Family Entrepreneurship and Experiential Learning

Family business and entrepreneurship are overlapping fields (Zahra and Sharma 2004) that have been recently recognised as the emerging field of family entrepreneurship which studies 'entrepreneurial behaviours of family, family members and family businesses' (Bettinelli et al. 2014, p. 164). To date there has not been an in-depth study of entrepreneurial learning in the context of family entrepreneurship and family business (Hamilton 2011). Although an individual, a leader or a 'champion' plays a significant role in entrepreneurial activity (Clarysse and Moray 2004), it is in fact teams that drive new venture creation processes. As such, it is important to understand the entrepreneurial processes behind family firms from more collective and experiential perspectives.

Research has noted that the majority of entrepreneurial actions are undertaken not by individuals as it is often presumed but rather by teams of individuals (Nordqvist and Melin 2010). The identification and pursuit of opportunities are normally conducted by an entrepreneurial team, possibly formed by family members, that engage in the establishment or acquisition of a business (Discua Cruz et al. 2012). Entrepreneurial families coming from a collectivist culture rely on relatives collaborating, with some of them acting as entrepreneurial teams with different businesses (Discua Cruz et al. 2013). Research should go beyond the focus of family business and instead concentrate on the family behind entrepreneurial processes (Chrisman et al. 2003; Ucbasaran et al. 2003). Learning by doing is essential to the members of the team (Clarysse and Moray 2004): in this case, the entrepreneurial family. In this chapter, experiential learning is examined through a focus on entrepreneurial families where learning styles are applied by different members for the pursuit of their entrepreneurial activity.

From a family business perspective, experiential learning environments help family members to understand how past, present and future influence the family firm and continuity over time (Konopaski et al. 2015). Tacit

knowledge created through experience in family firms allows higher levels of firm-specific knowledge (Sirmon and Hitt 2003). In families with more than one business, the portfolio of firms and experience of members enable the creation of industry-specific knowledge or meta-specific knowledge; the latter refers to general knowledge of entrepreneurial activities, regardless of the context and industry (Sieger et al. 2011).

To date, there has been a disconnection between family business and entrepreneurship in regard to studying learning processes. Family business has focused more on situated learning (Hamilton 2011; Konopaski et al. 2015) and knowledge transmission (Sandoval-Arzaga et al. 2011), while entrepreneurship has researched experiential learning mainly from a new venture creation perspective (Rae and Carswell 2001; Corbett 2005). The entrepreneurial family provides an ideal setting to integrate the learning processes from family business and entrepreneurial experiences that differ in context and content.

Background to the Case Study

The story of the entrepreneurial family dates back to 1888 when the core family business, Healthy Products Inc., was founded. The second generation took over and later on by the 1970s the company passed to the third generation which is the current state of ownership and management of the business. In this business, traditional methods of elaborating chemical products remain as with previous generations, but the current owner and third generation—Carlos—implemented modern machines and new processes during his tenure. Healthy Products Inc. have been pioneers in fabricating some formulas and selling medicines in the city. Since Carlos took over, he has grown the business and also made changes to maintain the firm in operation even when big retailers arrived to the city years ago; however, the traditional methods are the differentiators that give the company the positioning of reliable and natural healthy products. Carlos has been in charge of the firm for 45 years now, along with his wife María; they have three adult children: Roberto, Miguel and Ana. Over the years María has helped too, she has been informally involved in the family business and she has also dedicated to selling merchandise in the informal economy. Their children got involved in the business during their childhood, not because

they had to as an obligation but because they wanted to go and help their father. When Roberto, Miguel and Ana grew older, they had the opportunity to decide the careers they wanted to follow. Their parents gave them that freedom instead of imposing they should study something related to the family business. As fruit of the successful family business, each of them could attend private schools in Mexico to pursue formal education while at the same time helping in the family company. When Roberto graduated from architecture, he decided to open a construction company (peripheral business 1) with the help of his parents. Soon after, Miguel graduated and decided to apply his formal education (accounting) in the family firm, as it seemed obvious to him and his father that this should be the most appropriate route for him. Ana started working for different companies applying her degree in communication sciences until she finally decided to create her own magazine business (peripheral business 2). The idea of this business emerged as a result of the advice her mother gave her. She was also motivated to own and manage her own firm from looking at her siblings and parents with their own.

After a couple of years with his firm, Roberto started to face some challenges with his construction company. His father and his brother Miguel offered Roberto the opportunity to open a number of sites (as franchises) of the family firm to help him as another source of income, while also growing the family business in the city where they operate. Roberto continues with his construction business and manages simultaneously the different sites that now he manages independently. Ana continues with her magazine, while María continues selling merchandise informally (peripheral business 3) and helps her husband with the core family business. Although there is great emphasis in the family business, peripheral businesses are considered important too.

As it can be noted here, all members of the family are involved in a business, either in the core family business (Carlos and Miguel) or in peripheral businesses (Miguel, Ana and María). It should be emphasised that there is high interaction within the family, even when the offspring are adults now and each of them has their own nuclear family and household. The fact that only Carlos and María share a household does not represent a limitation for their children to support and be supported by their parents. In this family, there is a mix of roles with owners, entrepreneurs and potential successor. Details of members of the family and their firms are specified in Table 8.1.

Table 8.1 Members of the entrepreneurial family

Family member	Relationship	Age	Role	Business	Size of firm (# of employees)	Age of business	Family generation in business
Carlos	Father	65	Owner/ successor	Healthy Products Inc.—core family business	11–50	10+ years	Third
Miguel	Son	37	Potential successor	Healthy Products Inc.—core family business	11–50	10+ years	Fourth
Roberto	Son	40	Entrepreneur	Construction Inc.—peripheral business 1	1–10	1–5 years	First
			Owner	Franchises of family business	1–10	1–5 years	Fourth
Ana	Daughter	36	Entrepreneur	Magazine Inc.—peripheral business 2	1–10	1–5 years	First
María	Mother	63	Housewife	Bits and Bobs Inc.—peripheral business 3 (informal)	Self-employed	6–10 years	First

Methodology

The case study is focused on the family and its members rather than on the firms. By having this focus of analysis, it is possible to centre on the different learning experiences of owner/entrepreneurs within the family. There is also a shift from the lone or individual entrepreneur to highlight the importance of the family in which learning is complemented by other members to benefit their multiple firms.

A qualitative methodology was employed, and it has the ability to explore new depths in entrepreneurship that are in constant change and shaped by the experiences and behaviours of entrepreneurs (Neergaard and Ulhøi 2007). Through qualitative research, the interactions between family and business, often hidden, can be discovered to provide significant insights (Reay 2014). This approach was deemed appropriate for researching entrepreneurial families, as the dynamics and interplay in the family context can provide rich insights. It was especially suitable to explore the processes through which members of the family learnt to work entrepreneurially according to their experiences (Rae and Carswell 2001).

While much existing research in entrepreneurship and family business has normally depicted a single respondent, in-depth semi-structured interviews were conducted with the five members of the entrepreneurial family. This also contributed to understand family interactions of the entrepreneurs, to mitigate flawed memory limitation and to triangulate findings. The use of interviews allowed the study to discover implicit and ambiguous connections within the family unable to be gathered by employing quantitative methods (Nordqvist et al. 2009). The case study is based on actual owner/entrepreneurs; however, family members' names and business details have been changed to preserve confidentiality.

Analysis: Experiential Learning in Entrepreneurial Families

The entrepreneur acquires the ability to learn through experience but does so by learning first in the entrepreneurial firm rather than through a planned process of learning (Deakins and Freel 1998). As such, members

of entrepreneurial family learn in this way at different stages of the entrepreneurial process and in different points of their lives. Learning as children for the junior generation was experiential, mainly by feeling and doing and then by transforming experience into learning with a **divergent** style. This occurred by selling things informally at school or by helping in the family business. Learning was more focused on the process rather than on the outcomes; Carlos and María wanted their children to experience enterprising activities early in their childhood. They enabled opportunities for them to experience the process of selling on their own. Rather than giving them money every week, they had to earn their own. On this, María reflects 'It was up to them by the end of the week the amount of money they had earned to buy the things they wanted, it was all theirs.' Later, both Carlos and María helped their children to reflect on their activities during the week. Opportunities in the core family business were also given by helping out and being able to participate in the firm, even when the junior generation thought of it as more like playing, they were learning by doing.

> *Practically, since we were little, since I can remember we were playing here but also helping and learning. (Miguel)*

> *As kids we would come during our school holidays to help in the business. It wasn't an obligation we went because we liked it. Being involved helped me know the business well. (Roberto)*

In transforming experiences, the process may involve watching others and then reflecting or choosing to act directly and start doing things (Kayes et al. 2005). The former has been mainly the path that Miguel has taken in the family business. As potential successor, he has followed a more reflective style before jumping into action, through **assimilating** experiences. This style has been also influenced by his father Carlos, who relies on the processes he has practised for many years in the company taking a less adventurous route and sometimes formally transferring knowledge to Miguel. As such, it shows the prevalence of the long-term orientation in the core family business by following traditions and not taking many risks. The following are some interactions between incumbent and successor:

I had been able to see the changes my dad made in his time (when he took over the business) and the way he manages the business now. (Miguel)

Because of the lack of experience, I haven't given my son full control, I need to go with him through certain processes in the operation of the business, but he already takes many decisions. (Carlos)

From there, Miguel has also learnt from conflict experiences with his father that resolving disagreements has enabled experiences to learn from 'we needed to change and implement modern systems, it has cost me a little bit with my father, but we are getting there' (Miguel). These experiences combined with the context of the core family business living a growth stage have forced Miguel to adopt a **convergent** learning style, thinking about problems and possible solutions, combining learning with his formal education.

I started formally in the company to help in accounting because that's what I studied, but got more involved in the business, I experienced that I needed more than technical knowledge. (Miguel)

The junior generation agrees that having their parents as role models and their upbringing motivated their entrepreneurial spirit. Roberto as entrepreneur reflects:

My parents have always been an important source of good example and motivation; they have worked hard with the family business all their life. If they hadn't been like that, my story (as entrepreneur) would be different today. (Roberto)

This is a clear example how Roberto has created knowledge by observing and reflecting on the experiences of his parents; however learning for Roberto as entrepreneur goes beyond having Carlos and María as role models but also by acting directly in his construction business where he experiences learning and 'relearning' processes (Kolb and Kolb 2005), adopting an **accommodating** learning style. Roberto is keen on active experimentation through seeking opportunities to implement in his own construction business (peripheral business 1). Through experience, he

has learnt to react to certain events to process information, adapt and take decisions (Deakins and Freel 1998). For example, learning from mistakes when he has not planned his construction projects in accordance to his capacity or he has failed to consider payment times from clients, especially the government which takes long periods of time to process payments. As such, he has taken decisions as a result of adapting and processing past experiences.

Family members gaining experience in nonfamily firms can increase family firm heterogeneity of knowledge, increasing the opportunity to compete ideas for decision making (Sirmon and Hitt 2003). Ana has been able to combine her experiences from employment in other firms alongside her experience gained from helping in the family business. The benefits from experiential learning in those firms have helped in the creation and management of her firm (peripheral business 2). From these experiences, Ana has also been able to engage with her business in different perspectives as a result of the personal networks she has developed:

> *When I started my magazine, I put together a group of people I had known over the years to contribute as collaborators in the magazine. That is how I started, by asking people for small contributions so the magazine started to gain popularity. The selection of collaborators was a key factor for its success, as well as targeting the right market. (Ana)*

Ana employed a **divergent** learning style at the creation stage of her magazine business, by focusing on the interrelationships that created meaning for her and her firm. She focused more in getting together the correct group of collaborators, listening to them with an open mind and imagining the way she could incorporate people's experiences by valuing their skills and passion they showed to the content of her magazine.

Contrasting with studies in family business, in entrepreneurial families, experiential learning in the core family firm has passed beyond firm-specific knowledge (Sirmon and Hitt 2003) or industry-specific knowledge (Sieger et al. 2011). This study has found that knowledge becomes more generic to apply in different firms and industries like Roberto and Ana have done with their own firms through their entrepreneurial abilities. For both Roberto and Ana, this is a cyclical process in which they reflect on the

general knowledge they have of doing business (gained by working in the family firm or other firms). Then jumping into action to reduce *learning asymmetries* (Corbett 2005) and to create the additional knowledge they require in their specific firms while adapting and learning as they progress on their entrepreneurial journey. Their combined learning has built the basis as entrepreneurial families to transform resources into capabilities and manage their firms in the challenging environment of Mexico.

The Entrepreneurial Family as Learning Space for Exploration and Exploitation of Opportunities

The knowledge in the family facilitates collective learning processes that can take an experiential form (Clarysse and Moray 2004). The entrepreneurial family becomes a 'learning space' (Kolb and Kolb 2005) enabling the transactions between individuals and the environment. The learner's immediate setting is the firm in which he/she operates, but the entrepreneurial family acts as an incubator, whereby members have the flexibility to experience learning through their different firms and by the support members give reciprocally in terms of entrepreneurial exploitation or exploration of opportunities depending on the need of their firms. As such, the family helps in entrepreneurship by providing incubator experience and, in line with Deakins and Freel (1998), more experienced entrepreneurs can show others how to reflect from experience and absorb knowledge from learning opportunities. This happens mainly from senior to junior generation, for example, more experienced members (Carlos and María) with their enterprising knowledge help their children as mentors to support experiential learning for early entrepreneurs (Roberto and Ana) and potential successor (Miguel). However, there are also opportunities when mentoring and support happen from junior to senior generation; Miguel reflects 'we never stop learning from each other' because he is more experienced than his father in the implementation of technology in the family business. Carlos has also admitted that Miguel started managing the accounting of the business, but he has demonstrated his capabilities to run the business and has implemented modernisation processes from which he has also learnt.

Exploration and exploitation activities are intertwined in the entrepreneurial family without a sequential path. This emphasises how entrepreneurial families balance the tension between exploration and exploitation (Volery and Mueller 2015). While the father and the potential successor are devoted to improve existing processes in the family business, the daughter Ana is dedicated to search and acquire knowledge by experience in her media business. This implies widely different learning styles, from seeking and exploiting opportunities to experimenting with new ideas. At the same time, the other son Roberto is trying to stabilise his construction company while exploring innovations for the family business: 'Because in the construction sector there are high and lows that affect my business, I am also involved in the family business opening new branches and exploring new ideas to grow.' Members in entrepreneurial families face challenges in uncertain environments, such as Mexico. This enables experimenting in different firms across the family, for example, Roberto has also thought of manufacturing the packaging for the products in the core family firm. This is a clear illustration how Roberto moves from one learning style to another, adopting **divergent** and **accommodating** thinking into the exploration of opportunities in the family business, while Carlos and Miguel continue to practise more **convergent** and **assimilator** styles. As such Carlos, Miguel and Roberto act as a team in the core family business applying experiential learning for exploitation and exploration of opportunities for entrepreneurial activity (Corbett 2005). Finally, María supports all entrepreneurs and continues to learn through the experiences of managing her informal business; but mainly the informal business has served as platform for the junior generation to learn experientially with less risk than learning in the family firm when they were children. An important implication of the entrepreneurial family is that while members individually adopt different learning styles, the family enables opportunities to learn from watching and reflecting on experiences of other members with their firms when facing challenges in the specific context of Mexico; at the same time, members pursue their respective individual entrepreneurial activities.

Conclusion

Existing theories on entrepreneurial learning have highlighted the importance of an experiential learning perspective (Corbett 2005; Hamilton 2011; Rae 2005). This chapter adopted an experiential learning focus to examine entrepreneurial learning in everyday life of the entrepreneurial family, happening either in the context of the business(es) or in the family. In doing so, this chapter contributes to capturing the diversity of learning styles and experiential learning within a single family, the entrepreneurial family, which enables identifying nuances through the different roles (owner, entrepreneurs, successors) and the distinct nature of the firms. It offers understanding of experiential learning theory into the process of succession where exploitation is more likely to happen and into the process of venture creation where exploration of opportunities is more prominent (Corbett 2005; Goel and Jones 2016). While learning modes are not fixed, every person has some dominant styles (Kolb 1984) as shown through the examples in the analysis section. Miguel, as successor, acts more as a converger and an assimilator, while Roberto and Ana in the early stages of their own firms act more as diverger and accommodators. However, beyond categorical styles, it is highlighted in this chapter that members grasp and transform experiences showing variations and gradations of experiential learning depending on their education, experience with the family business and needs of the firm they operate. This contributes to understanding the complex approach to experiential learning in which individuals adopt learning styles depending on the setting and content of experiences.

This chapter underscores the distinction between the core family firm and peripheral firms in the family, as such, differentiating learning experiences from members. It was found that learning by doing was more prominent in members owning and managing peripheral firms, while learning in the family firm occurs in a more behavioural and cognitive manner through transmission of knowledge. This chapter also differentiates between learning configurations in the entrepreneurial family with multiple firms beyond the traditional focus of learning in family firms where situated learning is the dominant approach (Hamilton 2011; Konopaski et al. 2015). It also shows that flexibility and adaptability can

be more easily afforded by members in entrepreneurial families as opposed to stand-alone entrepreneurs who wear different 'hats' to be successful (Corbett 2005). The strength of family ties, along with the diversity of firms, enables members to learn by watching others wear different 'hats', complementing experiential learning with knowledge transfer across the family.

References

Bettinelli, C., Fayolle, A., & Randerson, K. (2014). Family entrepreneurship: A developing field. *Foundations and Trends in Entrepreneurship, 10*(3), 161–236.

Chrisman, J. J., Chua, J. H., & Steier, L. P. (2003). An introduction to theories of family business. *Journal of Business Venturing, 18*(4), 441–448. https://doi.org/10.1016/s0883-9026(03)00052-1.

Clarysse, B., & Moray, N. (2004). A process study of entrepreneurial team formation: The case of a research-based spin-off. *Journal of Business Venturing, 19*(1), 55–79. https://doi.org/10.1016/s0883-9026(02)00113-1.

Cope, J. (2003). Entrepreneurial learning and critical reflection. *Management Learning, 34*(4), 429–450. https://doi.org/10.1177/1350507603039067.

Corbett, A. C. (2005). Experiential learning within the process of opportunity identification and exploitation. *Entrepreneurship Theory and Practice, 29*(4), 473–491. https://doi.org/10.1111/j.1540-6520.2005.00094.x.

Deakins, D., & Freel, M. (1998). Entrepreneurial learning and the growth process in SMEs. *The Learning Organization, 5*(3), 144–155. https://doi.org/10.1108/09696479810223428.

Discua Cruz, A., Hamilton, E., & Jack, S. L. (2012). Understanding entrepreneurial cultures in family businesses: A study of family entrepreneurial teams in Honduras. *Journal of Family Business Strategy, 3*(3), 147–161. https://doi.org/10.1016/j.jfbs.2012.05.002.

Discua Cruz, A., Howorth, C., & Hamilton, E. (2013). Intrafamily entrepreneurship: The formation and membership of family entrepreneurial teams. *Entrepreneurship: Theory and Practice, 37*(1), 17–46. https://doi.org/10.1111/j.1540-6520.2012.00534.x.

Gibb, A. (2002). In pursuit of a new "enterprise" and "entrepreneurship" paradigm for learning: Creative destruction, new values, new ways of doing things and new combinations of knowledge. *International Journal of Management Reviews, 4*(3), 233–269. https://doi.org/10.1111/1468-2370.00086.

Goel, S., & Jones, R. J. (2016). Entrepreneurial exploration and exploitation in family business: A systematic review and future directions. *Family Business Review, 29*(1), 94–120. https://doi.org/10.1177/0894486515625541.

Greeno, J. G., Collins, A. M., & Resnick, L. B. (1996). Cognition and learning. In D. C. Berliner & R. C. Calfee (Eds.), *Handbook of educational psychology* (pp. 15–46). New York: Macmillan.

Hamilton, E. (2011). Entrepreneurial learning in family business. *Journal of Small Business and Enterprise Development, 18*(1), 8–26. https://doi.org/10.1108/14626001111106406.

Heck, R. K. Z., Hoy, F., Poutziouris, P. Z., & Steier, L. P. (2008). Emerging paths of family entrepreneurship research. *Journal of Small Business Management, 46*(3), 317–330. https://doi.org/10.1111/j.1540-627X.2008.00246.x.

Jack, S. L., & Anderson, A. R. (1999). Entrepreneurship education within the enterprise culture. *International Journal of Entrepreneurial Behavior & Research, 5*(3), 110–125. https://doi.org/10.1108/13552559910284074.

Kayes, A. B., Kayes, D. C., & Kolb, D. A. (2005). Experiential learning in teams. *Simulation & Gaming, 36*(3), 330–354. https://doi.org/10.1177/1046878105279012.

Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development*. Englewood Cliffs: Prentice-Hall.

Kolb, A., & Kolb, D. (2005). Learning styles and learning spaces: Enhancing experiential learning in higher education. *Academy of Management Learning & Education, 4*(2), 193–212.

Kolb, D. A., Boyatzis, R. E., & Mainemelis, C. (2000). Experiential learning theory: Previous research and new directions. In R. J. Sternberg & L. F. Zhang (Eds.), *Perspectives on cognitive, learning and thinking styles* (pp. 227–247). Mahwah: Lawrence Erlbaum.

Konopaski, M., Jack, S., & Hamilton, E. (2015). How family business members learn about continuity. *Academy of Management Learning & Education, 14*(3), 347–364.

Neergaard, H., & Ulhøi, J. P. (2007). *Handbook of qualitative research methods in entrepreneurship*. Cheltenham: Edward Elgar Publishing.

Nordqvist, M., & Melin, L. (2010). Entrepreneurial families and family firms. *Entrepreneurship and Regional Development, 22*(3–4), 211–239. https://doi.org/10.1080/08985621003726119.

Nordqvist, M., Hall, A., & Melin, L. (2009). Qualitative research on family businesses: The relevance and usefulness of the interpretive approach. *Journal of Management and Organization, 15*(3), 294–308. https://doi.org/68248669.

Rae, D. (2005). Entrepreneurial learning: A narrative-based conceptual model. *Journal of Small Business and Enterprise Development, 12*(3), 323–335. https://doi.org/10.1108/14626000510612259.

Rae, D., & Carswell, M. (2001). Towards a conceptual understanding of entrepreneurial learning. *Journal of Small Business and Enterprise Development, 8*(2), 150–158.

Randerson, K., Bettinelli, C., Fayolle, A., & Anderson, A. (2015). Family entrepreneurship as a field of research: Exploring its contours and contents. *Journal of Family Business Strategy, 6*(3), 143–154. https://doi.org/10.1016/j.jfbs.2015.08.002.

Reay, T. (2014). Publishing qualitative research. *Family Business Review, 27*(2), 95–102.

Sandoval-Arzaga, F., Ramírez-Pasillas, M., & Fonseca-Paredes, M. (2011). Knowledge integration in Latin American family firms. In M. Nordqvist, G. Marzano, E. R. Brenes, G. Jimenez, & M. Fonseca Paredes (Eds.), *Understanding Entrepreneurial Family Businesses in Uncertain Environments: Opportunities and Resources in Latin America* (pp. 181–202). Cheltenham: Edward Elgar Publishing Lmtd. Retrieved from https://books.google.co.uk/books?hl=en&lr=&id=nfusZ2w3O3wC&oi=fnd&pg=PA181&dq=Knowledge+Integration+in+Latin+American+Family+Firms&ots=jlwm73ZW6f&sig=Px4_6NZkLm3D82BFC2m2s2KThKI

Sieger, P., Zellweger, T., Nason, R. S., & Clinton, E. (2011). Portfolio entrepreneurship in family firms: A resource-based perspective. *Strategic Entrepreneurship Journal, 5*(4), 327–351. https://doi.org/10.1002/sej.120.

Sirmon, D. G., & Hitt, M. A. (2003). Managing resources: Linking unique resources, management, and wealth creation in family firms. *Entrepreneurship Theory and Practice, 27*(4), 339–358.

Ucbasaran, D., Wright, M., & Westhead, P. (2003). A longitudinal study of habitual entrepreneurs: Starters and acquirers. *Entrepreneurship and Regional Development, 15*(3),207–228.https://doi.org/10.1080/08985620210145009.

Volery, T., & Mueller, S. (2015). Entrepreneur ambidexterity: A study of entrepreneur behaviours and competencies in growth-oriented small and medium-sized enterprises. *Small Business Journal*. Retrieved from http://journals.sagepub.com/doi/abs/10.1177/0266242613484777

Zahra, S. a., & Sharma, P. (2004). Family business research: A strategic reflection. *Family Business Review, 17*(4), 331–346. https://doi.org/10.1111/j.1741-6248.2004.00022.x.

9

Learning from a Premium Dining Restaurant to Implement a Delight Strategy in a Bar/Grill: Applying Experiential Learning

David Bamber and Clay Gransden

Introduction

Eating out has become an integral part of the culture and society across the world, yet there are many factors within society that have changed eating habits over the last few decades, in some part due to globalisation (Burnett 2004; Flandrin and Montanari 2013; Finkelstein 1989). In 2010, "eating out" was worth £46.2 billion to the UK economy and there were 420,034 catering outlets with 112,769 enterprises employing 1,415,000 (Oxford Economics 2015). Retaining a diner base and encouraging new diners to make the restaurant thrive have become more important than ever. A "delightful" service for the diner is seen as a way of fulfilling both of those business needs.

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Case Restaurant Chain Background

The first phase of this study used data provided by the head office of a premium dining restaurant chain. The restaurant chain (a stock exchange-quoted company based in Manchester, UK) was formed in 2006 and operates 34 restaurants in major cities, towns and suburbs all over the UK. There were two different restaurant formats in operation: (a) an Italian restaurant with bar and (b) a grill with bar format. Although the two formats of restaurant offer different styles of cuisine, they are both premium casual dining. The mantra that the company prides itself on that has placed the company in its current position in the marketplace is "Service, People, Food and Cleanliness". This mantra is echoed through the business and this can be seen in action when visiting any of the restaurants. The food contributes to the premium casual theme and is freshly prepared daily on each of the premises. To maintain high service standards, each site has its own trainer who ensures the front of house staff have a thorough knowledge of all the food, drinks, menus and service protocols. The restaurant company is representative of the full-service sector of UK restaurants that account for over 66% of the revenue by providing meals from a set menu (Oxford Economics 2015).

Two mystery diners (a total of 68 diners) are sent out a month to each of the 34 restaurant sites to review the service and ensure high food standards. Separately, an internal food audit is carried out on a monthly basis. The restaurants have been furnished to high specifications, and grand buildings are used to create a distinct atmosphere. Top management commitment is evident, each director bringing their own skill set to the company and enthusing staff. The directors want their staff to delight the diner, and thus the company ensures the delighted diners will return and use word-of-mouth marketing to tell others about the delightful restaurant experiences.

Literature Review

Service Delight

Research into diner delight in restaurants has been almost non-existent with the delight research focusing on the hotel sector (Barnes et al. 2011). In the restaurant sector, Bowden and Dagger (2011) and Bowden et al.

(2013) present research focused on customer trust and loyalty. As eating out is now a way of life for UK consumers, it is important to understand how the restaurant diner may be delighted (Burnett 2004). Service delight is important as it can confer a competitive advantage to the restaurant and confront intense competition. Delight is either a combination of (a) surprise and joy (as noted by Plutchik 1980; Oliver et al. 1997; Verma 2003; Arnold et al. 2005) or (b) surprise and interest (Kumar et al. 2001). Surprise is a neutral and short-lived emotion that is elicited by a schema discrepancy: either misexpected or unexpected products/services/attributes (Ekman and Friesen 1975; Derbaix and Vanhamme 2003). Creating a surprising event creates focus and that may leave a stronger memory trace for the event (Schützwohl 1998). Arguments have been posited that there are connections between customer delight, loyalty and word-of-mouth effect, which could be a by-product of the prolonged memory trace (Arnold et al. 2005; Finn 2005). However, a precursor to delight is whether the company has both the internal environment and the processes in place to implement a "delight strategy" (Torres and Kline 2006).

Expectations

Expectations construct certain perspectives on customer quality, as suggested by Zeithaml et al. (2009, page 75): "Customer expectations are beliefs about service delivery that serve as standards or reference points against which performance is judged." Customer expectations can have a negative impact on company success if expectations are not fully understood, thereby losing money through reductions in the customer base and through the provision of services that customers do not need (Zeithaml et al. 2009).

Expectation Disconfirmation Model

The expectation disconfirmation model (EDM) is based upon Festinger's (1957) work on cognitive dissonance theory. The EDM was presented by Oliver (1980) to explain the determinants of consumer

satisfaction/dissatisfaction and the engagement with services. The model posits that satisfaction equals expectation minus perception, derived from diners' emotional responses to the experiences. The basic premise of the model is that expectations coupled with the perceived performance of the service lead to post-purchase satisfaction. The effect is mediated through positive or negative disconfirmation between expectations and performance. If the service outperforms expectations, then a positive disconfirmation will be obtained and post-purchase satisfaction will occur. The reverse will happen if the product falls short of expectations and post-purchase dissatisfaction will occur. Based on the confirmation or disconfirmation, the customer will then decide whether to continue to use or not use the service again (Oliver 1980).

The Zone of Service Tolerance

Zeithaml et al. (1993) models the "Zone of Tolerance" between "adequate service" and "desired service". If the service drops below the adequate service level, which is the minimum expected, this will result in the customer becoming frustrated and more likely to become dissatisfied and even disgusted. If the service experience is above the "Zone of Tolerance" and desired service is exceeded, then the customer will be more than satisfied, very happy, surprised and feel emotions connected with unexpected joy. In the middle is the "Zone of Tolerance", where the customer may not note service performance. However, if the experience falls outside either end of the model, then the customer's attention will be captured in either a negative or a positive manner (Zeithaml et al. 1993). Imrie (2005) notes that passive service was judged by Taiwanese service users to be below consumers' normative expectations of what service should be delivered. Yet, they would not complain as the inconsistency with expectations was generally considered *Cha bu dao*, or within the Zone of Tolerance, and the preservation of a positive relationship with the service provider was deemed to be of greater importance than "to complain for mediocre, and yet functional service, (which otherwise) would mean a loss of face".

Phase One

Method

Primary data was collected using a questionnaire that (a) identifies skill sets for employees in different roles that would be necessary to provide the excellent service that is a precursor of the provision of service delight and (b) identifies restaurants where service was below that expected by the company, so that company could immediately initiate remedial training. The questionnaire was custom designed to assess diner service across the various job roles using open-ended questions and rating scales. The questionnaire assessed 12 types of service episodes covering the full-service journey, with a final open-response item for "additional feedback".

The mystery diners were instructed to visit one of the 34 restaurants twice a month, over a six-month period, to order a meal and use the bar service. The mystery diners were required to score the service episodes and provide open comments for each aspect within a spreadsheet. The spreadsheet calculated a total percentage score for each visit. Two reports were delivered per month from each site, making a total of 408 reports available for analysis from over 100 different individual mystery diners. The authors worked with the company's regional training manager and gained consent to undertake the research from the restaurant chain. Qualitative thematic analysis was used to analyse the data (Miles and Huberman 1994). Mystery diners' response statements were coded using NVivo until theory saturation was reached.

Findings

Restaurant Service

The mystery diner reports produced service themes which became the baseline skills required by employees in phase two. The open-response comments from the mystery diners indicated the importance of each theme. Following an iterative reflection process that used the codes and memos, it was clear that the initial themes represented *service episodes* within the service experience as well as *facilitators and inhibitors of service*.

Inhibitors of service included:

a) Bad phone manner
b) Confusion
c) Reservation lost
d) No one to greet
e) Temperature too hot
f) Temperature too cold
g) Inappropriate music
h) Cramped
i) Not clean
j) Lighting too bright/too dim
k) Unprofessional
l) Drink not to expectation
m) Drinks too slow
n) No interaction
o) Appears unhappy
p) Flat champagne
q) Slow service

Facilitators of service included:

a) Service facilitators
b) Polite
c) Enthusiastic
d) Checked: repeated booking back
e) Greeted with enthusiasm
f) Temperature OK
g) "Mellow" music
h) Pristine
i) Lighting OK
j) In control
k) Identifiable
l) Drinks as expected
m) Served promptly
n) Friendliness
o) Enquires about requests

p) Double serving
q) Asks to refill empty glasses

The service facilitators and inhibitors were linked with several service episodes as follows:

a) Booking
b) Greeting
c) Atmosphere
d) Manager
e) Drinks
f) Bartender

Booking and Greeting Episodes

The booking aspect of the restaurant experience is the first contact with the business prior to visiting (if a booking is made beforehand); therefore it is important to the construction of expectations. There was an example of "confusion" where the phone operator left the customer feeling quite disappointed and therefore having negative expectations before the visit. A poor telephone manner can be equally detrimental in the formation of expectations. The comments indicated the expectations that diners had when placing a booking: the diners' reactions to enthusiasm are more positive than when diners stated the person on the telephone was "polite". Poor service delivery at this stage puts the diners in the wrong frame of mind, even before their meal, making their overall experience prone to be more negative than it needs to be.

Restaurant Atmosphere Episodes

Comments concerning the restaurants' cleanliness were generally very favourable with some diners mentioning the overall appearance of the restaurant. The majority of the comments concerning appearance concerned "the cleanliness of the toilets" and this was the most important aspect of cleanliness to the diners. In relation to expectations, "having a

clean toilet" falls into "adequate service", but the fact it was so "pristine" falls into desired service. These aspects of cleanliness would be controlled by the managers on duty, as they would oversee the checking of the toilets on a regular basis.

Manager Episodes

The "manager" theme had three episodes (a) "in control" (the manger seemed in control), (b) "unprofessional behaviour" and (c) "identity", whether or not the manager could be identified. The manager being "in control" was a positive theme and contributed to the diners' restaurant experience in a positive way. "Identity" episodes focused mainly on whether the diner could pick out the manager from the other staff. Diners enjoyed the fact the manager was acting not like an employee but more like an owner. When the manger interacted with the diners, this made the diners feel like special guests. The fact the manager could do such a thing showed that he was in control of the restaurant and could turn his back as he knew that all would be well. If the diners found that the manager exhibited an "unprofessional behaviour" in front of the diner, that aroused negative emotions. In one instance, the manager was very rude to the staff: demeaning them in front of the diners.

Drinks and Bartender Episodes

Drinks are important. If diners' expectations are not met and the drinks requested do not arrive as expected (based on their previous experiences), then negative feelings arose. Slow service, at least within the UK context, is insufferable. If delivered at the correct time and manner, these aspects of drink service are taken as core elements of service delivery. The bartenders are important as the diners interact with them regularly during the restaurant visit. The diners expect that someone who works in the restaurant should have knowledge of what they are doing. Diners feel safe if employees know what they are doing. Disappointment occurs when bartenders do not know what they are doing. Being personable and efficient is helpful when dealing with customers and that evokes positive

responses. Episodes of "double serving" where a bartender takes the order of one customer whilst in the middle of serving another customer aroused very positive responses. "Quick service" was praised by diners and those episodes aroused positive emotions. Professionalism was highlighted as a key factor and there was an expectation from diners that the bartender would be happy and interact with diners. Poor bartending episodes occurred when the bartender "appeared unhappy" in the job and was "not interacting".

Food Episodes

Neophilia, having novelty and choice, is seen as a good thing to most diners. However, neophobia, fear of the new, is seen as comforting to some (Burnett 2004). Both of these aspects have underlying cultural norms, for instance, diners presume that at some point the order will be taken and assume that it will be delivered in a reasonable time. If the order is not taken, there will be negative emotions, but if it is done within the expected time, then there will be no positive response, as the order-taking episode is a base requirement of service provision. The meal is at the heart of the dining experience and is the main restaurant event, so when the diner's food is wrong or does not meet expectations, this can lead to negative reactions, even as far as ruining the dining experience. This could be a major precursor to customer disgust (which is the antithesis of delight) which even if dealt with appropriately can still leave customers very unhappy, as "food" is the lynchpin of the whole dining experience. The last episode is a massive faux pas in the restaurant setting: "when the meal is taken away before the diner has finished eating", as this arouses very negative feelings and it is highly probable that the diner will be disgusted.

Staff Episodes

Waiters often construct the most important service episodes, as the waiters are the ones who serve the diners. Waiters are the people that the diner has most contact with and therefore waiters shape the diners' experiences

most. One factor is that of "busyness" affecting the waiter's performance during serving. Firstly, when the restaurant is busy, then is the time to impress. If the business fails during these episodes, return visits may not occur: when the waiter, during that episode, could only give basic service and he "lacked a personal touch". There were episodes when the waiter lost control: when he was so busy that he could not even give the most basic service. This left the diner feeling dejected. There were episodes when the restaurant was quiet, which perhaps vexes the customer more. Then there is no excuse for poor service because there is spare time to interact with the customer. These episodes, concerning "busyness", can be frustrating for the diner and are certainly important in influencing satisfaction, delight or disgust. An episode concerned the kitchen staff and the way they were behaving stood out, indicating that diners expect appropriate behaviour from kitchen staff and any kind of behaviour that is deemed inappropriate by the diner can result in dissatisfaction which can ultimately lead to disgust.

Diners' Request Episodes

Where a request was carried out in relation to the atmosphere of the restaurant, the diner was satisfied and happy. When a diner's request was not carried out, negative feelings arouse.

Payment and Departure Episodes

The departure episode is as important as the greeting, because a "goodbye" done well can make the customer feel like they are valued customers. Generally, the bill "being incorrect" aroused negative feelings in the diner as they felt they were being "ripped off" or are "paying for something that was incorrect". There can be more issues if the error is not dealt with adequately. Diners who are rushed feel like they are being pushed out of the restaurant and negative feelings occur, especially if the diners were previously enjoying their dining. Yet, if an indication is made when it is busy and the diner can stay longer than they know they might otherwise

do, then this provides positive feelings and makes the diners feel special. A good "goodbye" episode can stick in the mind and make the diner feel valued, additionally making a good experience shine.

Phase Two

Method

Employees in one bar/grill restaurant were introduced to weekly meetings: a longitudinal study was carried out over one year in a new bar in Liverpool city centre using an employee experiential learning set. Experienced employees that had knowledge of the baseline skills identified in phase one of the research were selected for each role. This bar/grill restaurant operated in a similar format to those bar/grills in the phase one premium dining restaurant chain.

Kolb (1984) notes that "experiential learning" is commonly defined as "reflecting and learning from experience". Hence, in the second phase of the research, the authors use the experiences of diners, service episodes, facilitators and inhibitors of service and the experiences of restaurant employees as the basis for reflection by the employees. The findings of the first phase of the research became the content of the initial learning set meeting. These findings were to be reference content for the ongoing experiential learning from which employees implemented service improvements towards a service delight strategy in the second phase.

Phase two started in February 2012 when the bar/grill was purchased from the previous owners. The bar/grill was situated in Liverpool city centre, just off where the main bars in Liverpool are situated. This bar/grill was situated in the famous Parr Street Studios building where there are many other hospitality businesses. An extensive makeover of the interior was completed including the installation of a new bar. One of the researchers managed the bar and worked with the entire team of seven employees. The results of the first phase of the research were presented and discussed in an extensive initial meeting. Then reflective meetings were held on a weekly basis to agree on actions to improve the business

during each following week. All decisions about service improvement were made collectively by the team of employees, acknowledging that each individual was the expert in their own job role. A social action theory approach was implemented during the yearlong study. By using the social action theory in a hospitality firm, Di Domenico and Morrison (2003) argue that this is a good fit due to the highly interactive nature of hospitality interactions, as these social action functions are a firmly rooted part of everyday life. Social action theory differs from other research strategies because of its explicit focus on action, in particular promoting change in the organisation: specifically, with the involvement of the employees in a democratic partnership with the researcher (Coghlan and Brannick 2001). At the heart of this method is an iterative learning spiral of diagnosing, planning, taking action and evaluating. Another reason for using this method was the additional influence and input of the staff who were practitioners skilled in this field of study. All of the staff were seasoned veterans within the hospitality sector, with each member of staff having over seven years of experience in busy high-end restaurants or bars.

Findings

Service Improvement

Learning set decisions made in the first quarter of the year were refined during the following three quarters, using continual evaluations to fine-tune the drinks and food sides of the business. Within each of the weekly meetings, decisions were made in regard to aspects of the business co-created with the staff. These covered aspects such as being professional, friendly, genuine and personable, having excellent knowledge of the products, being able to work under pressure, delivering speedy service and being empowered to make decisions when the manager is absent. Each staff member contributed and reflected on their experiences many times. All employees were well trained in the areas identified in phase one. If, for instance, a new product was introduced to the company, the relevant employee would ensure the representative for the brand came and met with all the staff and did hands-on training. Employees thrived

on this new "way" of learning and would often research, order new products and try out their own innovative techniques. This knowledge would be passed on to other employees during shift through interacting with the new product/technique.

The research gained an insight into how the team of employees were managing customers' expectations. The bar reached number 1 on TripAdvisor for Liverpool and held that spot for three months. "Success" was measured when the customer had been delighted by aspects of the experience, drinks, food or atmosphere which had been influenced as a direct or indirect result of practices or ideas of delight implemented by the team. The findings of the yearlong study were broken down into the main problems that were faced: concerning menus, cocktails, food, managing expectations through the décor and the beer offering. The first issue to address when opening the bar was the fact it was not on a main street which was established as a drinking venue for customers. The street was also run down with garages and a charity for homeless people. The business was situated away from the busiest districts and did not have a naturally large footfall as other parallel streets. At first, this was seen as a difficult problem to overcome, but, after several meetings, it was seen as an opportunity which the business could use and create a "positive" from. The experiential leaning set decided to manage expectations and it became vital to remain unassuming but to manage expectations as the customer entered the premises and made their way to the bar. The problems were addressed by creating awareness of the bar by placing a sign above the entrance which echoed what was going to be inside the venue. As a result of many meetings, it was decided to use the history of building which decades ago had been a famous recording venue. The bar was named "the attic" because of the fact it was up a step flight of stairs and the vinyl background of the sign was employed because the bar was in Parr Street Studios. Additionally a sandwich board sign was also placed outside with basic information of what was inside, and to further promote the fact that there was a bar, venue photos were placed on Facebook. Once the customers had decided to come into the bar, they had to traverse a large staircase which was not particularly inviting. Following further meetings, it was decided to adorn the walls with pictures of music stars from the past. This was done for two reasons firstly to make the stairs more interesting and

inviting and secondly to keep the theme of music going up the stairs, carrying on the theme from the signage outside. The pictures were also interspersed with old pictures of drinks which also formed the impression that there were alcohol and music on offer. At the top of the stairs was another larger sign akin to the one outside which reinforced the image of music and also kept the expectations managed as to what this place was to the customer. The interior atmosphere, decoration and furnishings were similarly managed along the "attic/music" theme.

It was difficult to measure what effect the atmosphere had on the takings as there was no direct measure of atmosphere to be able to make from the amount of money being taken. However, feedback comments left by customers showed positive emotive responses towards efforts taken to create the atmosphere. The comments showed that the experiential learning sets' aim to create a relaxed chilled out atmosphere was a success. The mixture of the seating and the decorations was heavily mentioned in being an attribute that was particularly pleasing. A few feedback statements captured the problems that were faced with the stairs being the only entrance to the bar and the location that the bar was situated.

The business as a whole was a success; for three months over the Christmas period of 2012, the company was listed number 1 on TripAdvisor inferring that the customers were being delighted on a regular basis. This as mentioned before was perhaps because the service being given was of far higher than that which was expected from the customer due to the management of their expectations. It was also found that a customer base was created without the expenditure of any large quantities of money. The company did not invest in much advertising and the repeat custom was a result of the experience given to the customer and the word-of-mouth marketing and loyalty that they gave. This reinforces views already in the literature that delight creates strong word-of-mouth marketing and also creates loyalty (Arnold et al. 2005; Bowden et al. 2011; Finn 2005). The employees were empowered and given all the support they needed in trying out new products and to improve their knowledge and skills. The employees were also looked after by the business: giving them autonomy by letting them serve the customer in the way they saw fit and making the job less of a job and more a way of life. Thus having this positive and supportive learning environment was integral to the success of the business and the implementation of learning.

Managerial Implications

Managers of full-service premium casual dining restaurants need to not only consider improving service quality and diner satisfaction but also must ensure the quality of service delivery across the full range of job roles and across the different episodes within the booking experience through the greeting, ordering, serving, eating, paying and leaving experiences, as well as the drinks' experience and when the diner makes special requests. Kitchen staff who may not necessarily engage with the diner directly do play an important role in diner satisfaction. When managers are identifiable and acknowledge diners, then diners feel they are special quests and are delighted. Key employee skills across the various job roles were identified in phase one of the research and refined to the particular case organisation in phase two.

Conclusion

In the first phase of this research, the mystery diners were all adults; however, a significant segment of diners are teenagers and children and their views have not been represented in the mystery diner reports that were used in this research, yet children are the ones most often delighted as they have less experience than adults and many events will be new and surprising for children. In the premium casual dining restaurant, failing to meet the diner's expectations should not occur, even during one episode. Hence such incidences, however rare, should be noted and training to avoid those incidences, with training objectives determined by the learning set, should be provided. Similarly, expectations are rarely exceeded, perhaps on less than five restaurant visits out of one hundred in adults, but when such occasions happen, these should also be noted as basis for experiential learning: to enable replication throughout the restaurant chain. It is the attention to such detail during each episode that will give the restaurant the competitive edge. However, there are potential limitations with the use of mystery diner reports in phase one. It may well be that the mystery diners have a particular interest in the types of restaurants they research for and have particular biased opinions or even

grudges about certain aspects of service. Hence, a kind of self-fulfilling prophecy may occur when the mystery diner is expecting a particular problem and hence seeks that problem out. There may be additional issues which they fail to notice and are not sensitive to.

Diner expectations about service delivery are not static during the dining experience and expectations are altered through the service episodes. Service employees must take care not to lower diner expectations too far; otherwise the perceived customer value in the offering will be lowered and may become negative. Lowered diner satisfaction could then lead to poor word-of-mouth marketing, boycotting and reduced repeat business by diners who have had a bad experience, even during just one episode of the service delivery. Managers need to be proactive in supporting employees to promote not just good service but a delightful service, which can be achieved through holding weekly experiential learning sets.

There are implications for in-house and specialist experiential learning programmes that focus on the specific individual job roles as well as more generic aspects of providing good service quality. Managers, chefs and kitchen staff may have formal qualifications, but bar persons, waiters, booking staff, greeters and cashiers may not have formal qualifications directly relating to their job roles, so in-house recognition of skills is important for them. Eliminating all chances of poor service delivery, at each episode, should have a high priority. How to work under pressure and how to behave at slack times are both vital skills. Choosing greeting staff who have a high degree of empathy and who have positive demeanour will increase the chances of the diner gaining a good first impression. Product knowledge is important. Here knowledge about the menu, the food, the drinks and choices is important for the waiters and bar persons, to match the offering to each diner's specific requirements. More generic experiential learning concerning aspects of emotional intelligence is important in understanding the diners' expectations, being empathetic towards the diners and having high intrapersonal skills: understanding how the diner may perceive oneself as both an experiential learner and an employee of the restaurant is important also.

Each employee, in their differing job roles, contributed to matching, raising, lowering or even extinguishing diner expectations. The diner will leave the restaurant with a perception of a poor experience if just one

episode concerning the service delivery is not matched and all other episodes are matched or even exceeded. The managers need to focus not only on the overall company performance but on each episode within the service delivery. Company performance will be threatened if just a single episode concerning service delivery is compromised. The diners make emotional evaluations about the service experience: (a) if those evaluations include surprise and joy, then the service is highly valued; (b) if those evaluations include surprise (through a mismatch of expected service delivery with poor actual service delivery) with, in the worst cases, disgust, that will lead to the diner disinvesting in the company and (c) if one aspect of service delivery fails, then diners' entire satisfaction may be put at risk.

The authors completed the second research phase in a new city bar/grill in Liverpool and implemented continual employee experiential learning for "role-specific skills" and "generic skills" based on the phase two findings and key employees' skills and assessed remarks left by *real* diners. Additionally, the researchers assessed the financial reports and customer feedback following experiential learning and operational interventions, and those showed excellent and ongoing improvements through the year.

References

Arnold, M., Reynolds, K., Ponder, N., & Lueg, J. (2005). Customer delight in a retail context: Investigating delightful and terrible shopping experiences. *Journal of Business Research, 58*(8), 1132–1145.

Barnes, D. C., Ponder, N., & Dugar, K. (2011). Investigating the key routes to customer delight. *Journal of Marketing Theory and Practice, 19*(4), 359–375.

Bowden, J., & Dagger, T. (2011). To delight or not to delight? An investigation of loyalty formation in the restaurant industry. *Journal of Hospitality Marketing and Management, 20*(5), 501–524.

Bowden, E., Dagger, T., & Elliot, G. (2013). Engaging customers for loyalty in the restaurant industry: The role of satisfaction, trust and delight. *Journal of Food Service Business Research, 16*(1), 52–75.

Burnett, J. (2004). *England eats out: A social history of eating out in England from 1830 to the present*. London: Longman.

Coghlan, D., & Brannick, T. (2001). *Doing action research in your own organization*. London: Sage Publications.

Derbaix, C., & Vanhamme, J. (2003). Inducing word-of-mouth by eliciting surprise – A pilot investigation. *Journal of Economic Psychology, 24*(1), 99–116.

Di Domenico, M. L., & Morrison, A. (2003). Social action research and small hospitality firms. *International Journal of Contemporary Hospitality Management, 15*(5), 268–273.

Ekman, P., & Friesen, W. (1975). *Unmasking the face*. Englewood Cliffs: Prentice-Hall.

Festinger, L. A. (1957). *A theory of cognitive dissonance*. Evanston: Row and Peterson.

Finkelstein, J. (1989). *Dining out: Sociology of modern manners*. London: Polity Press.

Finn, A. (2005). Reassessing the foundation of customer delight. *Journal of Service Research, 8*(2), 103–116.

Flandrin, J. L., & Montanari, M. (Eds.). (2013). *Food: A culinary history, European perspectives: A series in social thought and cultural criticism*. New York: Columbia University Press.

Imrie, B. C. (2005). Beyond disconfirmation: The role of generosity and surprise. *International Marketing Review, 22*(3), 369–383.

Kolb, D. A. (1984). *Experiential learning*. Englewood Cliffs: Prentice Hall.

Kumar, A., Olshavsky, R. W., & King, M. F. (2001). Exploring the antecedents of customer delight. *Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behavior, 14*, 14–27.

Miles, M. B., & Huberman, A. M. (1994). *An expanded sourcebook: Qualitative data analysis* (2nd ed.). London: Sage.

Oliver, R. (1980). A cognitive model for the antecedents and consequences of satisfaction. *Journal of Marketing Research, 17*(4), 460–469.

Oliver, R., Rust, R., & Varki, S. (1997). Customer delight: Foundations, findings, and managerial insight. *Journal of Retailing, 73*(3), 311–336.

Oxford Economics. (2015). *Economic contribution of the UK hospitality industry September 2015.* A report prepared by Oxford Economics for the British Hospitality Association.

Plutchik, R. (1980). *Emotion: A psychoevolutionary synthesis*. New York: Harper & Row.

Schützwohl, A. (1998). Surprise and schema strength. *Journal of Experimental Psychology: Learning, Memory, and Cognition, 24*(5), 1182–1199.

Torres, E. N., & Kline, S. F. (2006). From customer satisfaction to delight: A model for the hotel industry. *International Journal of Contemporary Hospitality Management, 18*(4), 290–301.

Verma, H. V. (2003). Customer outrage and delight. *Journal of Services Research, 3*(1), 119–133.

Zeithaml, V. A., Berry, L. L., & Parasuraman, A. (1993). The nature and determinants of customer expectations of service. *Journal of the Academy of Marketing Science, 21*(1), 1–12.

Zeithaml, V. A., Bitner, M. J., & Gremler, D. D. (2009). *Services marketing: Integrating customer focus across the firm*. New York: McGraw Hill.

10

Do Intrapreneurs Learn by Doing?

Maria de Lurdes Calisto

Introduction

Intrapreneurs are employees who proactively engage in entrepreneurial behaviours within established organizations. The major traits and actions of these individuals are similar to those of an independent entrepreneur. Like entrepreneurs, intrapreneurs identify and explore opportunities. People recognize different business opportunities due to information asymmetries (Shane 2000) and learning is the central process through which people acquire differing stocks of information and knowledge.

The importance of learning for the entrepreneurial process has been discussed for decades. For instance, Kirzner (1973) argues that for the entrepreneur to be alert to economic opportunities and make use of information advantages, learning is central. Learning has also been considered critical for entrepreneurial effectiveness (Rae and Carswell 2000).

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Notwithstanding, learning in the entrepreneurial process has been considered an understudied aspect in entrepreneurship literature (Corbett 2005). More recently, Wang and Chugh's (2014) review of the literature identifies 75 articles that address entrepreneurial learning. One might argue that in the context of the wide body of entrepreneurship literature, it is a very modest result. Moreover, articles concerned with the way intrapreneurs learn are scarce. One of the few exceptions is Honig's (2001) work that suggests the existence of different learning strategies when comparing entrepreneurs to intrapreneurs, at least at the nascent stage. Other studies suggest that like in the case of entrepreneurship, learning by doing is also present in the intrapreneurial process (Abetti 1997; Menzel et al. 2007; Weissbrod and Bocken 2017).

The complexity of the topic comes from the unique characteristics of the intrapreneurial process. On the one hand, intrapreneurship happens within established organizations, and intrapreneurial initiatives are to some extent dependent on the organizational context (Hornsby et al. 2002; Kuratko et al. 2005). Therefore, behavioural theories of learning might, at a first glance, seem more suited to understand learning in organizations focused on efficiency—as most organizations are. However, that would tend to reward those that follow the routine and status quo—similar to what Burgelman (1983) calls induced strategic behaviour—not intrapreneurs, who are more prone to autonomous strategic behaviour (Burgelman 1983). On the other hand, intrapreneurship results from the behaviour of individuals and intrapreneurial behaviours are in many aspects similar to those of independent entrepreneurs, namely, recognizing opportunities due to knowledge asymmetries and then exploring them. Intrapreneurs—similarly to independent entrepreneurs—might tend to use experiential forms of learning to acquire new knowledge. In fact, seminal articles in the field of intrapreneurship have established that diversity and experimentation are central to intrapreneurial activities (e.g., Burgelman 1983). In that case, experiential learning theory (Kolb 1984) would be more suited to understand intrapreneurial learning. Kolb (1984) defines learning as an experiential process through which concepts are derived from and modified by experience.

Following the rationale above, the main goal of this chapter is to use a multidisciplinary approach to explore intrapreneurial learning from two

perspectives—individual learning and organizational learning—in order to answer the question "do intrapreneurs learn by doing?" For that purpose, the specific goals of this chapter are as follows:

- Clarify the definition of intrapreneur and describe the characteristics and activities of intrapreneurs.
- Specify the importance of learning in the intrapreneurial process.
- Explore the connections between experiential learning theory and organizational learning theory, to explain intrapreneurial learning.
- Derive relevant takeaways for managers.

Who Is and What Does the Intrapreneur Do?

Entrepreneurship literature has tended to highlight the role of the independent entrepreneur, but the idea of an entrepreneur as a "maverick, often non-conforming, but single-handedly relentlessly pursuing opportunity – is an ideological convenience" (Drakopoulou Dodd and Anderson 2007, p. 341). A broader definition of entrepreneurship opens the door to the recognition of the wide range of innovative activities that might occur within established organizations. These innovative activities might happen at any organizational level because each employee might be a potential intrapreneur.

Intrapreneurial behaviour is one of the forms that corporate entrepreneurship might assume. Corporate entrepreneurship refers to "formal and informal activities aimed at creating new business in established companies through product and process innovations and market developments … Corporate entrepreneurship also entails the strategic renewal of an existing business" (Zahra 1991, p. 262).

The term 'intrapreneur', coined by Pinchot (1985), refers to someone who possesses entrepreneurial skills and uses them within a company instead of using them to launch a new business. Intrapreneurs are workers that go beyond their job descriptions, contributing to innovation in some aspect of their organizations. On the one hand, intrapreneurs share many key behavioural characteristics with independent entrepreneurs. Risk-taking is usually the main dispositional antecedent. Employees must

have a willingness to take a risk and have a tolerance for failure should it occur to engage in entrepreneurial behaviour (Burgelman 1983). Other characteristics necessary to an intrapreneur are proactiveness (Naman and Slevin 1993), receptivity to innovation (Burgelman 1985), and active resistance to bureaucracy (Mintzberg 1991). On the other hand, intrapreneurship is an individual behaviour within an organizational setting. "Intrapreneurship distinctly belongs to the domain of 'employee behaviour' and thus faces specific limitations that a business hierarchy and an internal business environment may impose on individual initiative, as well as specific possibilities for support that an existing business may offer to a nascent intrapreneur" (De Jong and Wennekers 2008, p. 24).

Intrapreneurs assume roles in the corporate entrepreneurship process. According to Hayton and Kelley (2006), several important roles have been associated with the success of corporate entrepreneurship in the literature, from which these scholars derive the competences specific to intrapreneurs. Intrapreneurs need specific individual competencies in order to integrate existing and new knowledge and recognize, evaluate, and capture entrepreneurial opportunities. This means that for each role there are critical underlying knowledge, skill, and personality elements.

Hayton and Kelley (2006) propose that all these roles need to be performed by one or more individuals in order for corporate entrepreneurship to occur. A single intrapreneur may play more than one of these roles or may assume different roles over time as needed. However, one might expect that in larger and complex organizations, it is less likely a single individual would play all these different roles. Table 10.1 summarizes the link between the competencies of intrapreneurs and their different roles. In every intrapreneurial role, knowledge and learning are fundamental—although in some more than in others.

As we have discussed, it is the individual employee who behaves entrepreneurially, but that behaviour happens within an organizational setting. As various intrapreneurs in an organization discover, learn, create, and enact new opportunities, they collectively influence an organization's learning. Therefore, organizational learning is the product of individuals' learning (Argyris and Schon 1978). For that reason, in the next section, we will discuss why the intrapreneurial process is a multiple level learning process—from the individual who learns to the learning organization.

Table 10.1 Key intrapreneurial roles and competencies

Roles	Main activities	Needed competence	Underlying knowledge, skill, and personality traits
Technical innovator	Opportunity recognition	Innovating	Domain-specific knowledge, cognitive ability, and creativity (through conscientiousness and openness to new experience)
Innovation champion	Identify with the project and take responsibility for its success	Championing	Emotional intelligence, transformational leadership skills, broad organizational experience, credibility, and trustworthiness
Executive champion or sponsor	Gain access to resources Ensure there are legitimacy and support for the project Provide advice and guidance to the venture on how to best proceed	Sponsoring	Deep technological and business knowledge, risk tolerance, persistence and passion, and transformational leadership qualities
Knowledge broker	Access new sources of information and knowledge Transferring knowledge and combining different sources, both existing and new Identify organizational members with needed knowledge and gain timely access to that knowledge	Brokering	Analogical reasoning skills, personal confidence, credibility, networking skills, curiosity, creativity, and intrinsic motivation

Source: Adapted from Hayton and Kelley (2006)

This is parallel to what the organization learning theory postulates—where it is important to clarify the existing relations between organizational and individual learning (Romme and Dillen 1997).

Learning in the Intrapreneurial Process

The Organizational Level of Intrapreneurial Learning

Corporate entrepreneurship is an organizational process facilitated by a strategic orientation towards entrepreneurial action—that is, an entrepreneurial orientation (Lumpkin and Dess 1996)—and by culture, structures, and systems supportive of innovation. The entrepreneurial behaviour of employees may not be planned, but once recognized and accepted it needs further nurturing and development. This is why organizational culture, structures, and systems are most relevant. Entrepreneurial organizations tend to be learning organizations that embrace change and willingly challenge competitors (Covin and Miles 1999). In fact, corporate entrepreneurship is usually modelled as a learning process (Phan et al. 2009) and, in the organizational learning literature, a learning organization is portrayed as a place where people continuously expand their capacity to create the results they truly desire and where new and expansive patterns of thinking are nurtured (Senge 1990).

More than an entrepreneurial orientation, entrepreneurial organizations possess a learning orientation—the degree to which a company proactively questions whether its existing beliefs and practices maximize organizational performance (Argyris and Schon 1978). There is a predominant characterization in the literature of learning orientation as an outcome of entrepreneurial orientation (Dess et al. 2003; Slater and Narver 1995; Wang 2008) since the exchange of ideas and knowledge among individuals widens a firm's collective imagination concerning viable entrepreneurial opportunities (Ioannides 1999; Witt 1999). However, learning orientation has also been seen as an antecedent of a firm's innovation capability (Calantone et al. 2002) as it encourages organizational

members to think "outside the box" (Baker and Sinkula 1999). This apparent contradiction reveals, in fact, a reciprocally causal relationship between entrepreneurial orientation and strategic learning capability as has been suggested by Anderson et al. (2009).

According to Anderson et al. (2009), there are four organizational phenomena that may contribute to building strategic learning capability: (1) an organizational structure that encourages the free flow of information across geographic and firm boundaries, (2) responsiveness to changes in the market, (3) a decentralized and flexible planning process, and (4) an environment/culture that encourages risk-taking and learning from past successes and failures. This suggests a favourable environment for experimentation although not all organizational learning leads to innovation.

Organizational learning might be adaptive (single-looped) or generative (double-looped) (Senge 1990; Argyris and Schon 1978). Adaptive learning is the most basic form of learning. It is usually sequential and incremental and it occurs within a learning boundary that reflects the organization's assumptions about its environment and itself. Therefore it is focused on opportunities that are within the traditional scope of the organization's activities. Generative learning requires a new way of looking at the world. Therefore, with this type of learning, the organization has to question long-held assumptions about its mission, customers, capabilities, or strategy. Although generative learning is more likely to lead to competitive advantage than adaptive learning, it is hard to sustain, and the window of competitive advantage can be supported only through continuous improvement.

Slater and Narver (1995) describe organizational learning as a three-stage process that includes information acquisition, information dissemination, and shared interpretation. Information may be acquired from direct experience, the experiences of others, or organizational memory. Information dissemination is the crucial element to distinguish personal learning from organizational learning when information acquired by one, or a few, individual is disseminated, thus obtaining a shared (organizational) interpretation of the information. This sharing of information increases its value as the information is seen in its broader context by all organizational members, thus maximizing its potential for organizational change. For this process to occur, it is relevant that organizations minimize

functional barriers that impede the flow of information improving the organization's ability to make rapid decisions. Finally, for organizational learning to actually occur, there must be a consensus on the meaning of the information and its implications for the business. Conflict resolution is enhanced by developing norms that encourage open sharing of information and remove constraints on information and communication flows. This communication may occur through liaison positions, integrator roles, or face-to-face contact, for instance.

The discussion above has two major implications for our purpose: (1) corporate entrepreneurship involves organizational learning, and organizational learning depends upon individual contributions (DeNisi et al. 2003). An organization learns "if any of its units acquires knowledge that it recognizes as potentially useful to the organization" (Huber 1991, p. 89); (2) entrepreneurial organizations learn both adaptively and generatively because the individuals in those organizations engage in experimentation. Although learning by doing is normally associated with adaptive learning, higher-level learning (generative) can also arise from the accumulation of more gradual and incremental learning (Burgoyne and Hodgson 1983).

Because organizational learning happens through individuals (Ipe 2003), in the next section, we will discuss individual learning in the intrapreneurial process.

The Individual Level of Intrapreneurial Learning

In the literature, individual learning is viewed in two main modes. On the one hand, learning is viewed as a cognitive process of acquiring and structuring knowledge and, on the other, as a process of making meaning from experience (Rae and Carswell 2000). Individual learning is thereby characterized not only by experience but also by rationality and personal qualities. However, according to Kolb (1984), the cognitive mechanisms related to the activation of knowledge are one thing, the social process by which knowledge is created is another.

Differences in individual knowledge in the process of identification of opportunities have been addressed by many scholars in the field of

entrepreneurship (Ardichvili et al. 2003; Eckhardt and Shane 2003; Shane 2000; Shane and Venkataraman 2000; Venkataraman 1997). Shane and Venkataraman (2000, p. 222) state that the factors that influence the probability that an individual will find particular opportunities are "(1) the possession of the prior information necessary to identify an opportunity and (2) the cognitive properties necessary to value it". Three major dimensions of prior knowledge are important to the process of entrepreneurial discovery: prior knowledge of markets, prior knowledge of ways to serve markets, and prior knowledge of customer problems (Shane 2000). If knowledge asymmetries are relevant in the entrepreneurial process, it follows that so is learning.

Most entrepreneurship scholars recognize that in the case of independent entrepreneurs, learning is experiential in nature (Politis 2005; Rae and Carswell 2000). Entrepreneurs learn primarily through learning by doing (Levinthal 1996; Smilor 1997)—encompassing learning through discovery, problem-solving, trial and error (Deakins and Freel 1998) and experimenting (Sitkin 1992)—but also through learning by imitating and borrowing (Beckman and Haunschild 2002). Some scholars argue that even if some knowledge can be learned by education, much of what is needed to the entrepreneurial process can only be learned by doing (Rae and Carswell 2000). One would expect intrapreneurs—if given the right conditions—to learn in similar ways. Hence, experiential learning theory (ELT) (Kolb 1984) would be applicable to how intrapreneurs learn and why they learn differently from other employees in the same organization. ELT is an integrative perspective that combines the constructs of previous knowledge, perception, cognition, and experience (Kolb 1984). ELT is useful to understand why some employees (intrapreneurs) acquire and transform information in manners others (non-intrapreneurs) don't, how they combine it with previous knowledge stocks, and why these behaviours result in an especial ability to recognize and explore opportunities.

Kolb (1984) defines experiential learning as a process by which knowledge is created through the transformation of experience. The process of experiential learning consists of three distinct elements: (1) the existing knowledge, (2) the process through which individuals acquire new information and experiences, and (3) the manner in which individuals

transform new information and experiences into new knowledge (Kolb 1984). This process follows a cycle that involves four learning modes—concrete experience, reflective observation, abstract conceptualization, and active experimentation. Kolb (1984) also develops a typology of learning styles—converger, diverger, assimilator and accommodator. An individual with diverging style has concrete experience and reflective observation as dominant learning abilities. The style is labelled 'diverging' because a person with it performs better in situations that call for generation of ideas. People with a diverging learning style have broad cultural interests and like to gather information. An assimilating style has abstract conceptualization and reflective observation as dominant learning abilities. People with this learning style are best at understanding a wide range of information and putting it into concise, logical form. Abstract conceptualization and active experimentation learning abilities are dominant in a converger. People with this learning style are best at finding practical uses for ideas and theories. They have the ability to solve problems and make decisions based on finding solutions to questions or problems. Individuals with a converging learning style prefer to deal with technical tasks and problems rather than with social and interpersonal issues. An individual with an accommodating style has concrete experience and active experimentation as dominant learning abilities. People with this learning style have the ability to learn from primarily 'hands-on' experience. They enjoy carrying out plans and involving themselves in new and challenging experiences (Kolb and Kolb 2005). However, any individual will learn best when she/he can go through the whole cycle (Mainemelis et al. 2002).

Based on Lumpkin et al.'s (2004) model of opportunity recognition, Corbett (2005) argues that all four learning styles are relevant for entrepreneurs. Lumpkin and colleagues' model (2004) considers four subprocesses in the process of opportunity recognition: preparation, incubation, evaluation, and elaboration. Preparation implies making an inventory and analysis of current stocks of knowledge and experience. Incubation is about reflecting and observing different options and possibilities. Evaluation implies assessing ideas to test for initial feasibility. During elaboration, planning, task execution, and exploitation take place.

Although extant literature seems to give a positive indication to the idea that intrapreneurs learn by doing, reliance on experiential learning alone is sometimes problematic because knowledge accumulated in this way is less diverse than knowledge accumulated from less familiar domains and can be difficult to transfer to other settings (Hatch and Dyer 2004). Maximum learning occurs when there is variation in the experience, although still related (Schilling et al. 2003). It is also relevant to consider the importance of vicarious learning (Bandura 1977) within an organizational context. Intrapreneurs also learn by observing others' behaviours and actions. Vicarious learning provides a basis for subsequent action in less familiar domains, as it teaches people general rules and strategies for dealing with new situations (Wood and Bandura 1989).

Intrapreneurship as a Dynamic, Multilevel, Learning Process

We are now closer to answer our departing question—*do entrepreneurs learn by doing?* We can now answer yes but intrapreneurs also learn by other forms and context matters.

Figure 10.1 depicts the complexity of intrapreneurship, from a learning process perspective. The learning processes relevant for intrapreneurship are both individual and organizational, each influencing the other.

Organizational characteristics set the context for intrapreneurs to emerge. Although intrapreneurial behaviour may emerge in non-entrepreneurial contexts, an entrepreneurial organizational context fosters intrapreneurship (Calisto and Sarkar 2017). Relevant organizational characteristics have to do with the strategic orientation of the organization and organizational structure, processes, and culture. These characteristics may facilitate the emergence of intrapreneurs.

Intrapreneurs possess specific individual characteristics. Relevant dimensions at the individual level, related to learning, have to do mainly with personality traits, perception and cognition abilities, experience, and prior knowledge. As consequence of these characteristics, individuals have different learning styles, and these may be more or less effective during

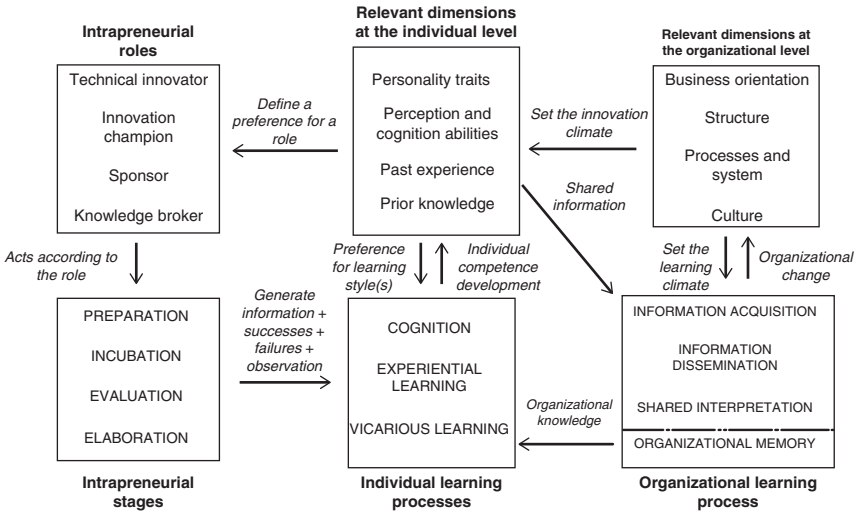

Fig. 10.1 The dynamic and multilevel nature of intrapreneurial learning. (Source: The author)

different stages of the opportunity identification and exploitation process (Corbett 2005). According to Corbett (2007), it is not just knowledge asymmetries that make some individuals identify opportunities that others do not but also the different manners in which individuals acquire and transform information and knowledge. Knowledge asymmetries exist because of learning asymmetries.

An individual intrapreneur may play different roles in the intrapreneurial process, for which she/he can mobilize diverse individual characteristics. Each intrapreneurial role is associated with specific activities in the intrapreneurial process. These activities provide experience (from both successes and failures) that will favour individual learning.

However, individual learning by doing is central but not sufficient. Learning can also be vicarious within the organization, or from outside sources, or occur from organizational memory or opportunistically (Kim 1993). Learning that occurs in the intrapreneurial process facilitates individual competence building, where formal education is combined with tacit knowledge acquired through experience. New individual knowledge should also (if there is no fragmentation in the organizational learning

process) add to organizational learning. However, transferring knowledge from individuals to the organizations asks for strategies and tools that permit integration of individual knowledge into that of the group.

Information dissemination is the crucial element to distinguish personal learning from organizational learning. Although this chapter focuses on the organizational and the individual levels of intrapreneurial learning, we recognize that groups are a fundamental link between these levels. Organizational learning is a dynamic process that implies movement between the different levels of actuation, passing from individual level to group level, from that to organizational level and also in the reverse direction (Crossan et al. 1999). Nonaka (1994) describes the learning process as a 'spiral' of knowledge creation. Organizational learning demands a specific climate that results from organizational characteristics and leads to organizational change.

Concluding Remarks and Implications for Management

In an organizational context, individual entrepreneurial initiatives (intrapreneurship) may be the base for firm growth and renewal. Knowledge acquisition and combination are crucial for the corporate entrepreneurship process, but the organization's ability to nurture and sustain innovation and new venture creation depends on the competencies of individual intrapreneurs. Intrapreneurs develop competencies through formal education processes—which are the usual concerns of managers, but mostly they learn by doing.

Since intrapreneurship occurs in an intraorganizational setting, intrapreneurial initiatives and intrapreneurial learning are to some extent dependent on the organizational context. Most organizations pursue exploitation and are used to accommodative learning. Understanding how to effectively pursue exploratory learning as well is a hard task (March 1991). To foster corporate entrepreneurship, from a learning process standpoint, managers should pay attention to four major challenging areas: (1) selecting and developing employees with the appropriate

knowledge, skills, and personality characteristics (Hayton and Kelley 2006)—individuals who value learning, act intrapreneurially, and favour working with others across the organization; (2) providing employees with varied learning opportunities. One thing is relevant concerning intrapreneurs and learning—they have a desire to continually develop their skills (Honig 2001). The previous points are relevant because, as Simon (1991, p. 125) argues, an organization learns in only two ways: by the learning of its members or by recruiting new members who have knowledge the organization didn't previously have; (3) developing a culture that encourages risk-taking and learning from past successes and failures, as well as knowledge sharing (Ipe 2003). An entrepreneurially stimulating environment, which is informal, fluid, and not constraining, facilitates the pursuit of creative ideas (Dobrev and Barnett 2005). Effective intrapreneurship requires investments in ideas and rewarding entrepreneurial thinking and experimentation; (4) fostering employee autonomy is also relevant, allowing free expression. Therefore, managers should not punish failures. Learning also takes place when failed projects are examined closely, and individuals must feel free to experiment without fear of punishment (Kuratko 2009). Taking risks, making mistakes, and experimenting with novel ideas and solutions are essential for individual and organizational learning.

References

Abetti, P. A. (1997). The birth and growth of Toshiba's laptop and notebook computers: A case study in Japanese corporate venturing. *Journal of Business Venturing, 12*, 507–529.

Anderson, B. S., Covin, J. G., & Slevin, D. P. (2009). Understanding the relationship between entrepreneurial orientation and strategic learning capability: An empirical investigation. *240*, 218–240. https://doi.org/10.1002/sej.

Ardichvili, A., Cardozo, R., & Ray, S. (2003). A theory of entrepreneurial opportunity identification and development. *Journal of Business Venturing, 18*(1), 105–123. https://doi.org/10.1016/S0883-9026(01)00068-4.

Argyris, C., & Schon, D. (1978). *Organizational learning: A theory of action approach*. Reading: Addison Wesley.

Baker, W. E., & Sinkula, J. M. (1999). Learning orientation, market orientation, and innovation: Integrating and extending models of organizational performance. *Journal of Market-Focused Management, 4*(4), 295–308.

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review, 84*(2), 191–215. https://doi.org/10.1037/0033-295X.84.2.191.

Beckman, C. M., & Haunschild, P. R. (2002). Network learning: The effects of partners' heterogeneity of experience on corporate acquisitions. *Administrative Science Quarterly, 47*(1), 92–124. https://doi.org/10.2307/3094892.

Burgelman, R. A. (1983). A model of the interaction of strategic behavior, corporate context, and the concept of strategy. *Academy of Management Review, 8*(1), 61–70. Retrieved from http://www.jstor.org/stable/257168

Burgelman, R. A. (1985). Managing the new venture division: Research findings and implications for strategic management. *Strategic Management Journal, 6*(1), 39–54.

Burgoyne, J. G., & Hodgson, V. E. (1983). Natural learning and managerial action: A phenomenological study in the field setting. *Journal of Management Studies, 20*(3), 387–399.

Calantone, R. J., Cavusgil, S. T., & Zhao, Y. (2002). Learning orientation, firm innovation capability, and firm performance. *Industrial Marketing Management, 31*(6), 515–524. https://doi.org/10.1016/S0019-8501(01)00203-6.

Calisto, M. L., & Sarkar, S. (2017). Organizations as biomes of entrepreneurial life: Towards a clarification of the corporate entrepreneurship process. *Journal of Business Research, 70*, 44–54.

Corbett, A. C. (2005). Experiential learning within the process of opportunity identification and exploitation. *Entrepreneurship: Theory and Practice, 29*(4), 473–491. https://doi.org/10.1111/j.1540-6520.2005.00094.x.

Corbett, A. C. (2007). Learning asymmetries and the discovery of entrepreneurial opportunities. *Journal of Business Venturing, 22*(1), 97–118. https://doi.org/10.1016/j.jbusvent.2005.10.001.

Covin, J. G., & Miles, M. P. (1999). Corporate entrepreneurship and the pursuit of competitive advantage. *Entrepreneurship: Theory and Practice, 23*(3), 47–63. Retrieved from http://www.questia.com/PM.qst?a=o&se=gglsc&d=5002332704

Crossan, M. M., Lane, H. W., & White, R. E. (1999). An organizational learning framework: From intuition to institution. *Academy of Management Review, 24*(3), 522–537.

Deakins, D., & Freel, M. (1998). Entrepreneurial learning and the growth process in SMEs. *The Learning Organization, 5*(3), 144–155.

De Jong, J., & Wennekers, S. (2008). Conceptualizing entrepreneurial employee behaviour. *EIM-SCALES (Scientific Analysis of Entrepreneurship and SMEs)*.

DeNisi, A. S., Hitt, M. A., & Jackson, S. E. (2003). The knowledge-based approach to sustainable competitive advantage. In S. E. Jackson, M. A. Hitt, & A. S. DeNisi (Eds.), *Managing knowledge for sustained competitive advantage: Designing strategies for effective human resource management*. San Francisco, CA: Wiley.

Dess, G. G., Ireland, R. D., Zahra, S. A., Floyd, S. W., Janney, J. J., & Lane, P. J. (2003). Emerging issues in corporate entrepreneurship. *Journal of Management, 29*(3), 351–378.

Dobrev, S. D., & Barnett, W. P. (2005). Organizational roles and transition to entrepreneurship. *Academy of Management Journal, 48*(3), 433–449.

Drakopoulou Dodd, S., & Anderson, A. R. (2007). Mumpsimus and the mything of the individualistic entrepreneur. *International Small Business Journal, 25*(4), 341–360. https://doi.org/10.1177/0266242607078561.

Eckhardt, J. T., & Shane, S. a. (2003). Opportunities and entrepreneurship. *Journal of Management, 29*(3), 333–349. https://doi.org/10.1016/S0149-2063(02)00225-8.

Hatch, N. W., & Dyer, J. H. (2004). Human capital and learning as a source of sustainable competitive advantage. *Strategic Management Journal, 25*(12), 1155–1178. https://doi.org/10.1002/smj.421.

Hayton, J. C., & Kelley, D. J. (2006). A competency-based framework for promoting corporate entrepreneurship. *Human Resource Management, 45*(3), 407–427. https://doi.org/10.1002/hrm.

Honig, B. (2001). Learning strategies and resources for entrepreneurs and intrapreneurs. *Entrepreneurship Theory and Practice, 26*(1), 21–36.

Hornsby, J. S., Kuratko, D. F., & Zahra, S. A. (2002). Middle managers' perception of the internal environment for corporate entrepreneurship: Assessing a measurement. *Journal of Business Venturing, 17*(February), 253–273. https://doi.org/10.1016/S0883-9026(00)00059-8.

Huber, G. P. (1991). Organizational learning: The contributing processes and the literatures. *Organization Science, 2*(1), 88–115. https://doi.org/10.1287/orsc.2.1.88.

Ioannides, S. (1999). Towards an Austrian perspective on the firm. *Review of Austrian Economics, 11*, 77–97. https://doi.org/10.1023/A:1007728107685.

Ipe, M. (2003). Knowledge sharing in organizations: A conceptual framework. *Human Resource Development Review, 2*(4), 337–359. https://doi.org/10.1177/1534484303257985.

Kim, D. H. (1993). *A framework and methodology for linking individual and organizational learning: Applications in TQM and product development*. Doctoral dissertation, Massachusetts Institute of Technology.

Kirzner, I. M. (1973). *Competition and entrepreneurship*. Chicago: University of Chicago Press.

Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development*. Englewood Cliffs: Prentice-Hall.

Kolb, A. Y., & Kolb, D. A. (2005). Learning styles and learning spaces: Enhancing experiential learning in higher education. *Academy of Management Learning and Education, 4*(2), 193–212. https://doi.org/10.5172/jmo.16.1.100.

Kuratko, D. F. (2009). The entrepreneurial imperative of the 21st century. *Business Horizons, 52*(5), 421–428. https://doi.org/10.1016/j.bushor.2009.04.006.

Kuratko, D. F., Ireland, R. D., Covin, J. G., & Hornsby, J. S. (2005). A model of middle-level managers' entrepreneurial behavior. *Entrepreneurship Theory and Practice, 29*(6), 699–716.

Levinthal, D. (1996). *Learning and Schumpeterian dynamics*. London: Macmillan.

Lumpkin, G. T., & Dess, G. G. (1996). Clarifying the entrepreneurial orientation construct and linking it to performance. *Academy of Management Review, 21*(1), 135–172. Retrieved from http://www.jstor.org/stable/258632

Lumpkin, G. T., Hills, G. E., & Shrader, R. C. (2004). Opportunity recognition. In H. P. Welsch (Ed.), *Entrepreneurship: The way ahead* (pp. 73–90). New York/London: Routledge.

Mainemelis, C., Boyatzis, R. E., & Kolb, D. A. (2002). Learning styles and adaptive flexibility: Testing experiential learning theory. *Management Learning, 33*, 5–33.

March, J. G. (1991). Exploration and exploitation in organizational learning. *Organization Science, 2*(1), 71–87. Retrieved from http://www.jstor.org/stable/2634940

Menzel, H. C., Aaltio, I., & Ulijn, J. M. (2007). On the way to creativity: Engineers as intrapreneurs in organizations. *Technovation, 27*, 732–743.

Mintzberg, H. (1991). The innovative organization. In H. Mintzberg & J. B. Quinn (Eds.), *The strategy process: Concepts, contexts, cases* (2nd ed., pp. 731–746). Englewood Cliffs: Prentice Hall.

Naman, J. L., & Slevin, D. P. (1993). Entrepreneurship and the concept of fit: A model and empirical tests. *Strategic Management Journal, 153*(October 1992), 137–153.

Nonaka, I. (1994). A dynamic theory of organizational knowledge creation. *Organization Science, 5*(1), 14–37.

Phan, P. H., Wright, M., Ucbasaran, D., & Tan, W.-L. (2009). Corporate entrepreneurship: Current research and future directions. *Journal of Business Venturing, 24*(3), 197–205. https://doi.org/10.1016/j.jbusvent.2009.01.007.

Pinchot, G. (1985). *Intrapreneuring: Why you don't have to leave the corporation to become an entrepreneur*. Cambridge: Harper & Row.

Politis, D. (2005). The process of entrepreneurial learning: A conceptual framework. *Entrepreneurship Theory and Practice, 29*(4), 399–425.

Rae, D., & Carswell, M. (2000). Using a life-story approach in researching entrepreneurial learning: The development of a conceptual model and its implications in the design of learning experiences. *Education + Training, 42*(4/5), 220–228. https://doi.org/10.1108/00400910010373660.

Romme, G., & Dillen, R. (1997). Mapping the landscape of organizational learning. *European Management Journal, 15*(I), 68–78.

Schilling, M. A., Vidal, P., Ployhart, R. E., & Marangoni, A. (2003). Learning by doing something else: Variation, relatedness, and the learning curve. *Management Science, 49*(1), 39–56. https://doi.org/10.1287/mnsc.49.1.39.12750.

Senge, P. (1990). *The fifth discipline: The art and science of the learning organization*. New York: Currency Doubleday.

Shane, S. (2000). Prior knowledge and the discovery of entrepreneurial opportunities. *Organization Science, 11*(4), 448–469. https://doi.org/10.1287/orsc.11.4.448.14602.

Shane, S., & Venkataraman, S. (2000). The promise of entrepreneurship as a field of research. *Academy of Management Review, 25*(1), 217–226. https://doi.org/10.1007/978-3-540-48543-8_8.

Simon, H. A. (1991). Bounded rationality and organizational learning. *Organization Science, 2*(1), 125–134.

Sitkin, S. B. (1992). Learning through failure: The strategy of small losses. *Research in Organizational Behavior, 14*, 231–266.

Slater, S. F., & Narver, J. C. (1995). Market orientation and the learning organization. *The Journal of Marketing, 59*(July), 63–74. Retrieved from http://www.jstor.org/stable/1252120

Smilor, R. W. (1997). Entrepreneurship: Reflections on a subversive activity. *Journal of Business Venturing, 12*(5), 341–346. https://doi.org/10.1016/S0883-9026(97)00008-6.

Venkataraman, S. (1997). The distinctive domain of entrepreneurship research. *Advances in Entrepreneurship, Firm Emergence and Growth, 3*(1), 119–138. https://doi.org/10.2139/ssrn.1444184.

Wang, C. L. (2008). Entrepreneurial orientation, learning orientation, and firm performance. *Entrepreneurship: Theory and Practice, 32*(4), 635–657. https://doi.org/10.1111/j.1540-6520.2008.00246.x.

Wang, C. L., & Chugh, H. (2014). Entrepreneurial learning: past research and future challenges. *International Journal of Management Reviews, 16*(1), 24–61.

Weissbrod, I., & Bocken, N. M. P. (2017). Developing sustainable business experimentation capability. A case study. *Journal of Cleaner Production, 142*, 2663–2676. https://doi.org/10.1016/j.jclepro.2016.11.009.

Witt, U. (1999). Do entrepreneurs need firms? A contribution to a missing chapter in Austrian economics. *The Review of Austrian Economics, 11*(1), 99–109. https://doi.org/10.1023/a:1007780124524.

Wood, R., & Bandura, A. (1989). Social cognitive theory of organizational management. *Academy of Management Review, 14*(3), 361–384.

Zahra, S. A. (1991). Predictors and financial outcomes of corporate entrepreneurship: An exploratory study. *Journal of Business Venturing, 6*, 259–285.

11

Understanding Organizational Values Through Experiential Learning

David Bamber and Steve Harding

Introduction

Literature suggests that successful leaders exceeded all reasonable expectations and succeed in getting followers or groups to fall in with their ideas (Larsson and Ronnmark 1996). Yet, it could be argued that it is not about getting the follower to fall in line with the leader. Rather that leadership is inducing followers and subordinates to pursue common or at least joint purposes that represent the values and motivations of both leader and follower. Furthermore, it has been suggested that employees in today's competitive and turbulent environment are looking to experience an increased desire for more meaningful and fulfilling work outcomes (Kinjerski and Skrypnek 2006). From a leadership viewpoint, this is of particular interest when examining employees' motives in following

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leaders and organizational values within the voluntary community sector (VCS) specifically when delivering services.

Leadership and organizational development of the VCS are particularly interesting when considering the traditional nature of the sector. The sector's overall purpose is to make a difference to people's lives; therefore, the driving factors for employees within the sector may be quite different than those of other sectors. Furthermore, the drive by British Central Government over the last decade to outsource public services to the VCS has required the sector to diversify service provisions. The demand of such diversification has required the sector to consider broad organizational development needs in order to meet the demands of local and central government contracts. Therefore, the VCS provides an opportunity to investigate values and leadership which have both a practical and theoretical basis. The theoretical basis focuses on the clarification around the ambiguity of values and in particular focuses on value interrelationships within leadership and organizational development domains.

Values and Organizational Development

Branson (2008) suggested the influence that leaders, employees and organizational values have on underpinning the development of the organizations. Organizational ideology is a mechanism with which to grow the organization and assist in optimizing organizational development. An important factor to consider here is the possible influence of leaders and their articulated values with employees within organizations, particularly around organizational development enablers (Schein 1990). Castka et al. (2003) indicate the goal of organizational development is to ensure the organization and all of its subsystems (processes, departments, teams, employees, customers and reward system) are working together in an optimum fashion to achieve the results desired by the organization. Crandon and Merchant (2006) may support this proposition of alignment within the organizational development arena when indicating that organizations are often limited by the lack of organizational alignment and cohesive action when aiming to improve performance. The values of leaders, employees and the organization all may influence personal behaviours

(Schwartz 1992; Schein 1990), which in turn may influence the subsystems identified above which are associated with organizational development. One of the early definitions of organizational development was proposed by Beckhard (1969) and stated that organizational development was a planned effort at the level of organization as a whole, supported by planned actions of top management to increase the effectiveness and well-being of the organization, whilst using knowledge provided by behaviour science.

Literature still indicates the broad nature of organizational development, which means that many interrelated topics could be included under this heading (Hannagan 2002). Both values and organizational development have many facets and perspectives. Hannagan (2002) indicates that organizational development is the skilled application of behaviour science to bring about organizational change through people. This perspective can be extended to indicate that organizational development is a long-term effort to improve an organization's vision, empowerment, learning and problem-solving processes. Abu-Hamour (2012) on the other hand suggests organizational development supports and assists organizations to overcome the challenges and problems they face, giving the organization the ability to survive and achieve its objectives efficiently and effectively. The different perspectives presented in the literature revolve around the core themes of organizational change, goals and problem solving that ensure this is done in the most effective and efficient manner possible: the literature suggests that organizational development is concerned with improving the overall efficiency and effectiveness of an organization in achieving its goals and purpose.

Abu-Hamour (2012) indicates there are two schools of thought within the field of organizational development: traditional and modern approaches to organizational development. Traditional approaches influenced by bureaucratic and classical theory focused on structures and legal and official aspects of the administrative system. In contrast, the modern approach highlights behavioural and humanistic aspects in terms of people's motives, needs and the importance of the external environment, working conditions and work as it addresses the group's working methods (Whitman 2008; Forbes 2016). We suggest organizational development practices that acknowledge the development and performance of

both individuals and groups of people within the organization will complement both the leader/follower literature and the organizational values literature. We note that organizational development is connected with appreciating the organization as a whole in achieving its objectives and that organizational development is about identifying the most appropriate ways to review and act upon information to best facilitate the organization to meet its goals. However, Kaufman (2003) indicates, no matter how well individual employees do their job, how high production is or how fast work is completed, everything has to end up adding value to both the organization and its external stakeholders.

Voluntary and Community Sector

This section reviews current and previous VCS research, along with the leadership and management themes within ChangeUp (Home Office 2004) and implications for the VCS. Kendall and Knapp (1995) described the VCS as a 'loose baggy monster'. The sector is made up of many diverse organizations ranging from unregistered and unincorporated associations through to national and international service providers, with multi-million pound budgets. Myers and Sacks (2001) indicate there is no universal agreement on the exact nature of sector. They suggest this has resulted in various labels about the sector, which are often contested. In the United Kingdom, these can include non-government organizations, charity sector, third sector, non-profit organizations, small medium voluntary enterprises, social enterprises, voluntary community and faith sector and voluntary and community sector. For the purposes of the current study, rather than switch from the various labels linked to the sector, the research will refer to the sector as the VCS. However, they all have a common thread; VCS organizations are independent of local and central government control. In fact, it has been suggested the sector is there not only to deliver services but to take up and act upon unpopular issues and criticize government bodies when necessary (Courtney 1994). However, charities have to work within the guidelines and criteria of the Charities Commission: the regulatory body established to regulate and administer the affairs of charities within the United Kingdom.

The sector has a tradition of innovation and a capacity of successfully working in complex and turbulent environments. However, various government papers have recognized the opportunity to improve and develop the sector and broaden the service provision delivered through the VCS (HM Treasury 2002; Home Office 2004; Compass Partnership 2004). Nevertheless, the 'voluntary' aspect of the sectors' name should not confuse the type of organizations being established and ran by volunteers. Though volunteers do have a key part in many of these types of organizations, what is essentially voluntary is that their committees and boards are voluntary. This is structurally their distinguishing characteristics; however, they are professional and committed in running quality services. However, Darlington (1996) suggests the nature of the sector does at time suggest an unprofessional approach to delivering services.

Popple and Redmond (2000) indicate the independence and variety of agencies and organizations which make up the sector and provide an established national infrastructure which can deliver public services which have a more local and focused scale. Myers and Sacks (2001) build on this viewpoint by indicating the size, scope, financing and purpose of the VCS suggest a major economic contributor and service provider. The Cabinet Office (2009) provides an insight into the size and scope of provision in the United Kingdom:

- 137,000 general charities in the UK,
- 61,800 social enterprises,
- 540,000 employed by the sector in England,
- Total income of £33 billion in 2006–07,
- 85% have income over £100,000 and
- Total government funding to VCS in 2006/07 across UK equates to £27 billion, which includes £7.8 billion contracts and £4.2 billion grants. (Office of the Third Sector 2009, pp. 1–3).

In delivering local services to the scales identified, it has been necessary for the VCS to develop partnerships with public and private sector agencies. This ability to build and hone inter-sector partnership has increased the interest in how the VCS can add value to current and future public sector service provision. This has been recognized within literature, which

has indicated the sector is a leader in building broad sector partnerships in adding value to statutory provision through ancillary and additional service provision (Popple and Redmond 2000; Myers and Sacks 2001; Baxter 2002).

British Government Perspective

Over a decade ago, the British Government carried out a 'Cross-Cutting Review' of the VCS's role in delivering public sector services. The review identified the opportunity for the VCS to be a key partner in developing and delivering services which are flexible enough to meet the needs of local communities. The review recommended the need for more discretion at a local level and the need for more community involvement in helping shape services, against a backdrop of national standards (Home Office 2004). Following the initial review, a series of government papers were produced examining and recommending processes and infrastructure requirements which the sector needed to focus on in order to build the capacity of the VCS in becoming a more active partner in delivering local public sector services (HM Treasury 2002; Home Office 2004; Compass Partnership 2004).

The British Government brought the contents of the various VCS specific recommendations together into one overarching infrastructure framework. 'ChangeUp – Capacity Building and Infrastructure Framework for the Voluntary Community Sector' (Home Office 2004) proposed the need to support frontline organizations in a flexible and 'fit for purpose' way, which mirrors needs against the stages of development within organizations. In essence, the recommendations stated there can be no 'one size fits all' approach, since the sector had a wide spectrum of developing organizations, from large multi-national charities such as Oxfam to localized micro-charities which may consist of fewer than five employees. Nevertheless, the framework did outline several common support needs shared by most organizations. The key themes identified within the ChangeUp framework were based around the following: (a) performance improvement, (b) workforce development and leadership, (c) ICT, (d) governance and (e) financing voluntary and community sector activity (Home Office 2004; p. 8).

There are three key aspects within the ChangeUp framework, which are of particular interest for the current research. Two of these focus on specific leadership and management areas, these being workforce development and leadership and the performance improvement streams. The third recommendation states that the framework should be implemented by 2014. This would possibly suggest a keenness within the VCS to participate in activities which support them in reviewing the recommendations outlined by British Central Government.

VCS organizations are often established to address or tackle quite specific objectives may that be addressing root causes to inequalities, implementing social change and/or wider societal benefit. In establishing such VCS organizations, their objectives, organizational goals and customers are often clearly defined and have often been established in response to a specific need or to address policy issues. This provides two opportunistic elements when researching the organizational development field in VCS; the societal objectives provide clear defined organizational objectives and specific beneficiaries which can be classed as customers to assess if their needs are being met. Examining organizational commitment around the parameters of values provides an aspect within the organizational development which supports the current research. Whitman (2008) and Green et al. (2001) support this when suggesting the benefit of evaluating VCS is their focus to contribute to the public good providing an organizational goal which is not just about target-driven statistical measures. Furthermore, Lyons et al. (2006) indicate that organizations which promote services for the good of society need employees who have high levels of commitment if organizations are to fulfil their purposes.

Research Method

This study used a social constructivist's philosophical perspective, which resulted in a grounded theory methodology being used. In order to meet the challenges of working with a grounded theory methodology, the research implemented a spiral approach as recommended by Berg (2007). This ensured a reflective approach to the research ideas and concepts, revisiting theory as it emerges from the data (Harding 2015).

Two VCS Case Study Organizations

When examining the finer details of the sector, 87.8% of all VCS organizations have an income under £500,000. The majority of these VCS organizations have an annual income of £10,000–£500,000 (Charities Commission 2014). This provided us with an initial rational to select case organizations based on the size of VCS organizations. Organizations fitting within the £10,000–£500,000 annual income bracket are representative of the highest proportion of organizations in the sector. VCS organizations with income of £10,000–£500,000 have a workforce of no more than 15 full-time equivalent employees. Secondly, organizational structures are quite flat in the sense there are often as few as three tiers in the organizational make-up. This study conducted research across all tiers within each organization. Two organizations were identified as possible case organizations for the research. Both organizations were based in the north-west of England: the first was Knowsley Disability Concern (KDC), which is a Knowsley-based disability charity, limited by guarantee and was established in 2000. KDC has a board of trustees consisting of 13 members and is led by a chief executive officer. The second was Hyndburn and Ribble Valley Council for Voluntary Service (HRVCVS): a Lancashire-based infrastructure support charity, also limited by guarantee and established in 1998. HRVCVS has a board of eight members and is led by a chief executive officer. Both organizations employ mainly women with 87% of our participants being female and 13% male, which is a representative of the VCS workforce in general.

Iterative Semi-structured Interview Approach

An introductory letter and flyer were sent to the heads of the two VCS organizations. Letters of approval were returned indicating both organizations were happy to participate in the study, and initial meetings were established to discuss the specifics of the research. Initial interviews were carried out with two representatives, in leadership roles within both participating organizations. Two participants were selected after meetings were held with senior managers to ensure staff were aware of the research

purpose and procedures. This resulted in two representatives from each organization agreeing to participate in the initial data collection phase and completing the relevant consent forms. We focused on values alignment in VCS organizations, particularly the leader and follower elements. Hence, interviewees were matched: each leader to a follower. Through several iterative phases, a total of ten participants engaged with the research in a series of one-to-one semi-structured interviews.

The systematic data analysis, using NVivo software, took place iteratively as the study used a multi-stage data collection model. This was then followed with a review of interview questions and identification of further interviewees to participate in the study. This interview approach allowed the study to delve deeper into the values field as new concepts emerged. Concepts within the data emerged as four main themes which were placed as quadrants in the OVM.

The Organizational Values Matrix

In an organizational context, the link between behaviours to reinforce the proposed shared values is crucial when interaction is observed by individuals and groups within the organization. We recognize it is not as simple as keeping values to oneself and then acting in a particular way. The interaction between leaders, employees and the organization is also important whether values are either explicitly stated or not. A question arises as to how values and behaviour interactions take place either formally or informally in the organization. The OVM (Fig. 11.1) is a theoretical model which, we propose, can be used in experiential development workshops to identify values development areas to support leadership and organizational development initiatives, particularly those that have a humanistic aspect to focus on achieving goals within a purpose, vision and mission perspective. The rationale behind experiential workshops is twofold. Firstly, experiential learning is concerned with the learners' internal cognitive processes; through collective interactions, the internal perceptions, judgements and reasoning are shared. However, values are elusive, intangible and often internalized, so secondly utilizing experiential learning-based workshops allows values

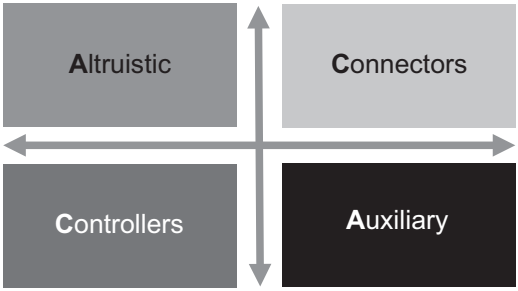

Fig. 11.1 The Organizational Values Matrix

knowledge to be developed through the transformation of the groups' experiences focused on values.

The quadrants of the matrix provide core themes and supporting tasks to be considered in experiential development workshops to promote employee development, leadership development and wider organizational development. It is important to note that the matrix and quadrants have emerged from an iterative analysis of rich interview data. Since the study used such a systematic process, Goulding (2002) suggests the study has considerable credibility in making conceptual links from data to theoretical structures. Each quadrant can be assessed, against criteria identified by experiential learners who work in the organization, to better appreciate how the organization addresses each of the quadrants. This enables a better understanding of value implementation from an organizational development perspective and a better understanding of how the organization addresses values interrelationships. A summary of the quadrants of the matrix is presented in Fig. 11.1.

The altruistic quadrant is one which is very much focused on wider society or other individuals in the organization rather than a self-benefit. We suggest this quadrant is a core values theme to which collective interests contribute. The value connectors quadrant involves interrelationships with values either with colleagues or personally through the recognition and understanding of values. The value controllers quadrant involves purpose, buy-in, commitment and how challenges and tasks are approached and carried out in an organization. This quadrant focuses on what individuals see as the organization's values through the actions and experiences individuals have when interacting with the organization. The

auxiliary quadrant focuses on the provision of benefits to organizational success and development but in a way that may be seen indirectly. The auxiliary quadrant links the interrelationships between the individuals and the organization. The auxiliary quadrant is based around either the individual's interrelationship with the organization or the interrelationship with colleagues providing collective benefits.

Each workshop is based on Kolb's (1984) experiential learning cycle, whereby the workshops are set up to ensure all four stages of the learning cycle are worked through. Although, each workshop may enter the experiential learning cycle at the relevant stage for that workshops' theme, either concrete experience, reflective observation, abstract conceptualisation or active experimentation.

Organizational Values Matrix Interrelationships

Collectively, the quadrants may be used in experiential workshops so that organizations and learners can facilitate values recognition and values application in delivering internal organizational development initiatives. Each of the four workshops uses several themes and tasks.

Values Connectors

Values connectors are a series of mechanisms by which the organization facilitates values recognition either on an individual basis or organizationally between colleagues. We recommend starting this workshop at the concrete experience stage, so that the values experiences they have experienced in the organization can be shared across the group. The importance of this category is very much focused on bringing the array of values which are being implemented across the organization together into a more formal process which allows the organization to better understand and manage the values relationships. An example of this is establishing a values *compact*, as an informal process in which values are shared and agreed on. This could then become a more formal compact which would be implemented by the organization.

Values Controllers

The value controllers quadrant incorporates how individuals perceive the organization though its interactions and behaviours and how those perceptions are formed. These controllers set the tone of the values which employees and other individuals expect from an organization when delivering services. The organization should identify values controllers and reflect on the interrelationship between the values controllers as these will influence how the overall organizational values are perceived. Initially, the workshop focuses on the reflective element of the values controllers, reflective observation on their experience, before moving onto the remaining stages of the experiential learning cycle.

To illustrate the usefulness of this quadrant, we imagine an organization with a values controller that indicates the organization must *win at all costs* but then states *honesty* as a core organizational value. The potential mismatch between those two values statements may negatively influence how employees and external individuals interpret and interact with the organization. The organization will need to explicitly reconcile the *win-at-all-cost* approach and the *honesty* value. This would be achieved in continuing to work through the experiential learning cycle stages, and then a more detailed understanding of the employees' perceptions of the organization, through interactions and behaviours, will arise. Hence, *values connectors* provide a mechanism to understand how the organization connects different values across the organization.

The Auxiliary Quadrant

The auxiliary quadrant focuses on processes and systems. This quadrant contains themes which provide benefits to organizational success and development since the outcome of the interactions within this category supports the organization in delivering services or products. An example would be *sharing responsibility* whereby collective responsibility without looking to blame colleagues provides a supportive working environment for the individuals to work within whilst benefiting organization indirectly through positive working relationships rather than destructive

relationships with a blame culture. Therefore, an experiential learning perspective would take what has been identified in the earlier workshops and focus the start of this workshop on active experimentation, trying out what has been learned and applying this learning to the auxiliary systems to support the values connectors and values controllers. The broad category is about investing time and resource in employees to influence relationships with the various components within the organization. This would support organizational development theory which indicates the goal of organizational development is to ensure the organization and all of its subsystems (processes, departments, teams, employees, customers, reward system) are working together in an optimum fashion to achieve the results desired by the organization. However, it can be stated the *auxiliary quadrant* is very much focused on the subsystems in order to achieve organizational services and products. In essence, *auxiliary* is the system in the matrix to ensure the *value connectors* and *controllers* have the support and processes to ensure the organizations have substance in being able to work collectively to ensure the values are developed holistically across the organization.

The Altruistic Quadrant

The altruistic quadrant is one which is focused on wider society or other individuals in the organization rather than self-benefiting. The *altruistic* quadrant plays an important role in underpinning the various other elements of the matrix, since the focus of the *altruistic quadrant* ensures the various *values connectors and controllers*, along with the *auxiliary quadrant*, are not too internally focused. The *altruistic quadrant* aims to ensure any of the subsystems, processes and approach to values implementation are not solely self-benefiting for the organization. The altruistic workshop returns to starting the learning process at the concrete experience stage of the experiential learning cycle. The sharing of altruistic nature of staff and organization is important, since this allows the learning group to continue with the experiential learning process, ensuring the values and behaviours being proposed through the workshop do reflect the substance of the values externally. The importance of recognizing employees

internally and having a wider society focus, whilst promoting positive behaviours and goals, in order to pertain good working relationships, provides what literature may refer to as a values base which is self-transcending (Schwartz 1999). We argue that the *altruistic quadrant* ensures there is a balance across the other quadrants of the matrix, which would need to be considered to ensure the organization follows the broader values and purpose of the organization willingly. In essence there is substance to the values proposed by an organization.

Discussion

The use of the matrix and the quadrants in experiential workshops will ensure employees are purposefully engaged in an organizational values process. Direct experience and reflection (i) increase the wider organizational knowledge, (ii) develop skills and (iii) clarify values. In turn, they promote several organizational values-focused outcomes: (i) moving values from being tacit to values being explicit, (ii) values-based employee engagement, (iii) defining the organizational purpose-focused values, (iv) recognition of employees' values and (e) confirming organizational priorities which transcend the organization. By working through the components of each quadrant, gaps in values-focused areas can be identified and addressed and value strengths can be celebrated.

Content for the altruistic quadrant experiential employee workshop should include four themes: (i) community, (ii) outward facing, (iii) person centred and (iv) internal recognition. Experiential learning tasks for the altruistic workshop would include (a) outlining an agreed community engagement plan, working with staff to agree how to engage with communities to encourage social benefits, either through direct organization activities or additional community-based activities; (b) safeguarding the organization against becoming too internally focused and self-consuming, recognizing and celebrating the organization's contribution to the wider society, so as to be outward facing; (c) providing detailed guidance on how decision-making processes keep all employees at the heart of what is done: working with employees to outline how decisions are made taking into account employees, which does not always need to

have direct business benefit and (d) recognizing employees internally and acknowledging that employees have a wider society focus, which collectively maintains good working relationships both internally and externally. The experiential learning tasks allow the actual day-to-day experiences to be shared collectively. Ensuring the organization gains a baseline understanding of altruistic practices, providing the organizations and employees the opportunity to begin to outline their aspirational objectives across the workshops' priority themes.

Content for the controllers quadrant experiential employee workshop should include five themes: (i) human, (ii) inspiration, (iii) purpose, (iv) employee engagement and (v) end product. Experiential learning tasks for the controller workshop should include (a) bringing the human element to the forefront of the values-based programme; (b) collectively defining how the future aspirations of the organization link in with wider societal benefits, including gaining buy-in to the ideas by employees and the wider community; (c) gaining agreement with employees how values and activities link back to the organization's driving force and understanding the purpose of the organization and why it was established; (d) actively engaging staff with the aim of securing positive commitment to the organization and supporting employee engagement by defining what positive action is and (e) collectively defining how the full complement of values, actions and services are delivered. Experiential learning is not to state what is the ideal but rather identify the values experiences and perceptions, which in turn will allow reflective thought on what actions, approaches and behaviours need to be introduced to meet the desired values for the organization.

Content for the connectors quadrant experiential employee workshop should include six themes: (i) compact, (ii) alignment, (iii) recognition, (iv) alignment, (v) interpretation and (vi) dynamism. Experiential learning tasks for the connectors workshop should include (a) identification of shared values and goals, which turn values from tacit to explicit throughout the organization; (b) building into the day-to-day operation opportunities to acknowledge and share examples of how teams are working towards and achieving the outlined goals; (c) implementing a values recognition process to show how well-defined values support individuals and teams achieve work objectives; (d) recognizing that utopia is not yet

a reality and there will be opposing and differing goals within the organization, but do not see this as a negative, and ensuring working teams identify examples of values non-alignment as well as values alignment; (e) implementing internal process which allows team recognition of specific values perspectives and working with teams to identify varying application of values in practice when completing work-focused tasks and (f) establishing an annual process which allows values development, which may change over time and situations, thus ensuring an appreciation of the impact of different job roles on values. Experiential learning objective following this workshop aims to outline an agreed values compact which ensures what connects the values in the organization is truly connected, allowing any areas of development to be outlined by employees and organization which will add value to their values processes.

Content for the auxiliary quadrant experiential employee workshop should include six themes: (i) job contentment, (ii) organizational processes, (iii) organizational wisdom, (iv) sharing responsibilities, (v) the lighter side and (vi) employment focus. Experiential learning tasks for the auxiliary workshop should include (a) working with employees to understand and promote the security and stability of working in the organization, rather than focusing on the turbulent and insecure aspects of work which is often the case; (b) reviewing the mechanism which brings together values controllers and connectors when outlining internal processes and ensuring that consideration is given to values and the practical impact of processes when delivering services; (c) bringing together the broader experience and abilities of employees, recognizing previous roles and jobs, not just current positions, and ensuring employees are provided with a wider scope of situations with the empowerment to act upon knowledge; (d) facilitating and defining shared responsibilities which are collectively promoted and reported on; (e) providing formal mechanisms to ensure there are opportunities to relax and share positive work experience, whether with other colleagues shared or not, and ensuring that positive experiences are promoted and (f) working with individuals and teams to identify the individual benefits of job roles and the organization in meeting individual needs and desires arising from work. Through experiential learning workshops, organizational supporting processes and approaches can be clarified whilst identifying good practice and opportunities to outline new processes and approaches in this area.

Conclusion

Through an experiential learning approach, the OVM can be used to support the development and implementation of an organizational development approach which acknowledges the humanistic school of thought. The OVM provides a framework which brings together values and wider organizational components which connect and align values with the whole organization through the experiences and learning of the employees. The OVM provides a structure that can be used to benchmark the organization's values across its quadrants. This will ensure there is a collective balanced approach to implementing the development of the organization's values interactions and values activities.

References

Abu-Hamour, H. M. J. (2012). The role of organizational development to improve the Jordanian universities effectiveness. *International Journal of Business and Management, 7*(19), 76–83.

Baxter, J. (2002). Discussion paper – Creative partnerships: Public and voluntary services working together. *Educational Psychology in Practice, 18*(1), 63–72.

Beckhard, R. (1969). *Organizational development: Strategies and models*. Reading: Addison-Wesley, ED: 037623.

Berg, B. L. (2007). *Qualitative research methods for social science* (6th ed.). Boston: Pearson International Editions.

Branson, C. M. (2008). Achieving organizational change through values alignment. *Journal of Educational Administration, 46*(3), 376–395.

Cabinet Office. (2009). *Office of the Third Sector business plan 2009–10*. Office of the Third Sector.

Castka, P., Sharp, M., & Bamber, C. J. (2003). Assessing teamwork development to improve organizational performance. *Measuring Business Excellence, 7*(4), 29–36.

Charities Commission. (2014). http://www.charitycommission.gov.uk/our-regulatory-work/how-we-regulate-charities/

Compass Partnership. (2004). *Working towards an infrastructure strategy for the voluntary and community sector*. London: OPM.

Courtney, R. (1994). Direction in voluntary sector management. *Management Development Review, 7*(3), 33–36.

Crandon, D. S., & Merchant, K. A. (2006). Principles to guide the development and use of effective performance measure. *Performance Improvement, 45*(2), 7–21.

Darlington, T. (1996). Leadership and management: Oedipal struggles in voluntary organizations. *Leadership and Organization Development Journal, 17*(6), 12–16.

Forbes, D. P. (2016). Measuring the unmeasurable: Empirical studies of nonprofit organization effectiveness from 1977 to 1997. *Nonprofit and Voluntary Sector Quarterly, 27*(2), 183–202.

Goulding, C. (2002). *Grounded theory: A practical guide for management, business and marketing*. Los Angeles/London: SAGE Publications.

Green, J. C., Madjidi, F., Dudley, T. J., & Gehlen, F. L. (2001). Local unit performance in national non-profit organization. *Non-profit Management and Leadership, 11*(4), 459–476.

Hannagan, T. (2002). *Management, concepts and practices*. London: Financial Times, Prentice Hall.

Harding, S. (2015). *Values alignment in voluntary and community sector organizations* (PhD Thesis). Liverpool Hope University.

HM Treasury. (2002). *The role of the voluntary and community sector in service delivery: A cross cutting review.* Her Majesty Stationery Office.

Home Office. (2004). *ChangeUp, capacity building and infrastructure framework for the voluntary and community sector.* Home Office Communications Directorate.

Kaufman, R. (2003). Value, value where is the value? *Performance Improvement, 42*(2), 36–38.

Kendall, J., & Knapp, M. (1995). A loose baggy monster, boundaries, definitions and typologies. In J. Davies-Smith, C. Rochester, & R. Hedley (Eds.), *An introduction to the voluntary sector*. London: Routledge.

Kinjerski, V., & Skrypnek, B. J. (2006). Creating organizational conditions that foster employee spirit of work. *Leadership and Organizational Development Journal, 27*(4), 280–295.

Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development* (Vol. 1). Englewood Cliffs: Prentice Hall.

Larsson, S., & Ronnmark, L. (1996). The concept of charismatic leadership, its application to an analysis of social movement and a voluntary organisation in Sweden. *International Journal of Public Sector Management, 9*(7), 32–44.

Lyons, S. T., Duxbury, L. E., & Higgins, C. A. (2006). Comparison of the values and commitment of private sector, public sector and parapublic sector employees. *Public Administration Review, 66*(4), 605–618.

Myers, J., & Sacks, R. (2001). Harnessing the talents of a 'loose and baggy monster'. *Journal of European Industrial Training, 25*(9), 454–464.

Office of the Third Sector. (2009, July). *Fact on the third sector*. Cabinet Office.

Popple, K., & Redmond, M. (2000). Community development and the voluntary sector in the new millennium: The implications of the third way in the UK. *Community Development Journal, 34*(4), 391–400.

Schein, E. H. (1990). Organizational culture. *American Psychologist, 45*(2), 109–119.

Schwartz, S. H. (1992). Universals in the content and structure of values: Theoretical advances and empirical tests in 20 countries. *Advances in Experimental Social Psychology, 15*, 1–65.

Schwartz, S. H. (1999). A theory of cultural values and some implications for work. *Applied Psychology, 48*(1), 23–47.

Whitman, J. R. (2008). Evaluating philanthropic foundations according to their social values. *Nonprofit Management and Leadership, 18*(4), 417–434.

12

Experiential Learning Through the Transformational Incubation Programme: A Case Study from Accra, Ghana

Stephen Dobson, Gideon Maas, Paul Jones, and Joan Lockyer

Introduction

Whilst entrepreneurship can play an important role in socio-economic development (Acs et al. 2014), it is argued that entrepreneurial activity which focuses predominantly on the individual entrepreneur may not have the desired impact on socio-economic development. In this sense, it is important to consider individual entrepreneurial activities within the wider socio-economic setting and to put into place a transformational mind-set from the beginning when developing business models. Miller and Collier (2010, p. 85) define transformational entrepreneurship "as the creation of an innovative virtue-based organization for the purpose of shifting resources out of an area of lower and into an area of higher purpose and greater value under conditions requiring an holistic perspective".

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A reliance on the provision of grants and subsidies may negatively influence the nascent entrepreneurial mind-set and foster a dependency culture. By focusing on business incubation and start-up in terms of experiential learning, we aim to help support greater entrepreneurial independence and resilience as well as develop greater 'pro-social' awareness amongst incubatees.

The case study in this chapter presents a programme designed to achieve the objective of supporting the creation of a range of businesses equipped for transformational entrepreneurship. By working with a local support team, along with mentors and business advisors, our approach is to support the incubatees as individuals and in their group development; help the entrepreneurs to develop a robust business model; support the growth aspirations of the business, relative to the needs and resources of the business; and help the business to become investor ready.

The programme builds experiential learning through three levels—the individual, the team (where relevant), and the business and its context. This multidimensional approach requires coordination with the local support teams and a degree of flexibility in the approach to the delivery of training to reflect the fact that businesses will progress at different rates. A learner-centric approach is required to adapt to the individual and their particular business needs.

Entrepreneurship Education

Despite offering a systematic literature review on entrepreneurship education, Pittaway and Cope (2007) conclude that there lacks consensus in the literature on the basic principles of and definition of entrepreneurship education (EE) as well as definitive evidence that education can create more effective entrepreneurs. Lackéus (2015) suggests that discussions concerning entrepreneurial education need to start with clarification of meaning and suggests that entrepreneurship may be considered from either a narrow or wide definition. The narrow definition of entrepreneurship is about becoming an entrepreneur and necessarily involves business development, self-employment, venture creation, and growth (Fayolle and Gailly 2008; Mahieu 2006). However, a wide definition of

entrepreneurship is more concerned with being enterprising, having expression and creativity, and taking initiative. In this sense it is more generally about becoming entrepreneurial and not specifically concerned with venture creation (Mwasalwiba 2010). Since the study presented here is concerned with EE in an incubator context, the definition adopted here is the narrow view of entrepreneurship as involving some form of venture creation or business growth. A further commonly held distinction in the nature of EE is concerned with purpose and differentiates between EE that is 'about', 'for', and 'through' entrepreneurship. Teaching 'about' entrepreneurship refers to a theoretical approach which seeks to enable learners to develop a general understanding of entrepreneurship and enterprise as a subject and may be considered the most common higher education (HE) approach (Mwasalwiba 2010). Alternatively, teaching 'for' entrepreneurship provides a means to engage directly with the development of self-employment knowledge and skills and aims to support nascent entrepreneurs in start-up. The process of teaching 'through' entrepreneurship is described as offering a more experiential approach where learners are directly engaged in an entrepreneurial learning process through business development and learning opportunities derived directly from the actual experience of business ownership and entrepreneurship (Kyrö 2005). Here we are primarily concerned with teaching 'through' entrepreneurship and consider the role of incubation as an important part of university entrepreneurship education through the emphasis on experiential learning.

Experiential Learning

Kolb (1984) considers experiential learning as "the process whereby knowledge is created through the transformation of experience. Knowledge results from the combination of grasping and transforming experience" (p. 41). In this sense, Kolb considers experience as an external environment with which the learner develops a reciprocal relationship. Learning therefore is the process of understanding more about the learners' social and physical environment and in turn having the ability to influence and shape this. This is a continuous, iterative, and coevolving

process of experimentation and reflection where both learner and the learners' contextual environment may develop and transform. Kolb et al. (2001) present experiential learning theory (ELT) as a holistic model of the learning process. ELT emphasises the central role of experience and practice. It is also referred to as experiential due to it having roots in the experiential works of Dewey (philosophical pragmatism), Lewin (social psychology), and Piaget (cognitive developmental genetic epistemology).

Boud et al. (1993) also underline the importance of reflection in experiential learning theory and therefore the use of reflective journals to record learning through practical experience. They prioritise the notion of 'internal' and 'external' experience forming the cognitive and social components of learning. Lefebvre (1991) considered these along with the physical/ontological aspect of space as forming the spatial triad (social, cognitive, and physical) in the production of space. It is through the interplay of these elements that we appreciate the range of dynamic interactions in ELT. Kolb and Kolb (2005) introduce the concept of (the) learning space as a "framework for understanding the interface between student, learning styles and the institutional learning environment […] experiential learning can be applied throughout the educational environment by institutional development programs, including longitudinal outcome assessment, curriculum development, student development, and faculty development" (p. 193).

Boud et al. (2013) underline that whilst experience-based learning is increasingly popular as a pedagogic approach, reflection is often insufficiently treated in programmes. Reflection should provide a dynamic component that is continuously part of contextualising the choices made and lessons learned and should be theoretically underpinned. It is by constantly oscillating between action and reflection that the shift between internal and external experiences enables the learner to progress. Dobson and Selman (2012) refer to the use of action-oriented approaches as an opportunity for experiential learning in a research context. Here reflexive enquiry, through a process of action cycles (Elfors and Svane 2008; McNiff et al. 2005), creates the opportunity for the researcher to learn and build knowledge in a practical organisational context. Blichfeldt and Andersen (2006) underline the benefits from the 'double-loop' learning approach introduced by Argyris and Schön (1978) and Schön (1983). In this model, outcomes resulting from a 'practice' loop may feed into a

second loop as the 'motive' for theoretical enquiry. We may consider that this dialectic involves shifting between learning 'for' entrepreneurship to learning 'through' entrepreneurship and back again iteratively.

Entrepreneurial Development Through Incubators

Establishing an educational model 'through' entrepreneurship involves direct engagement with experiential learning. ELT underlines the necessary oscillation between internal and external dimensions of learning development, and therefore the process of entrepreneurship becomes a central bridge for the learner to connect these. Business incubators are important vehicles to support this practice-based learning through experience.

Voisey et al. (2006, 2013) examine the impact and success of business incubation in the development and support of entrepreneurial activity and outline that "incubation is now viewed as a key component of regional and national economic development" (p. 455; see also Harman and Read 2003). According to Hackett and Dilts (2004), the role of an incubator is to deliver a community or regional strategy to promote new enterprise survival. Therefore, central to this proposition is the notion of place and connection between the fledgling business and its wider regional and community ecosystem and strategic goals. The underlying assumption therefore is that incubators are developing socially productive enterprise that fits with the needs of the local region whilst also supporting employment and economic growth.

The Case Study: Transformational Incubator, Accra, Ghana

Country Context

The need for an entrepreneurial renaissance in Africa is acute. Potential solutions are needed to generate a socio-economic revitalisation addressing the challenges of, amongst others, youth unemployment, deepening

income inequality, and persistent jobless growth. Amongst the countries in sub-Saharan Africa, Ghana is resource-rich, politically stable, and often cited as a model for developing African nations (BC 2017). Ghana has a population of 27.41 million (World Economic Forum 2015) and has a middle-income country (MIC) status, although many of Ghana's development indicators are still in the state of a low-income country (LIC). In recent decades, Ghana has made rapid progress towards human development and reduction of poverty levels; however, it is now facing significant macroeconomic challenges, including a sharp increase in inflation and public debt, a rapidly devaluing currency, and infrastructure shortages (BC 2017). Ghana's labour market remains poorly educated with 25 per cent having no education and 57 per cent obtaining only primary level education. In 2015, 53.8 per cent of GDP came from services; this is a figure in decline. Industry's contribution to GDP is 26.7 per cent and agriculture is increasing at a level of 19.5 per cent. While the Ghanaian economy is increasingly diversified, agriculture remains robust but constrained by declining popularity of the sector among young people who are drawn towards the service sector. According to the most recent Global Entrepreneurship Monitor (GEM) report for the country, the percentage of 18–64 population who are either a nascent entrepreneur or owner-manager of a new business, referred to as total early-stage entrepreneurial activity (TEA) rate, is 25.8 per cent. This appears to be a robust figure in comparison with the UK (8.8 per cent) and the US (12.6 per cent), but the figure is quite low compared to countries such as Botswana (33.2 per cent), Uganda (35.5 per cent), Senegal (38.6 per cent), and Nigeria (39.9 per cent). In 2016, the IMF World Economic Outlook database indicates the Ghana as having a 5 per cent decrease in GDP growth between the average in 2010–2014 and 2015–2016.

Transformational Incubator: Skills Hub and Innovation Centre

In March 2016, the British Council Skills Hub and Innovation Centre opened in Accra, Ghana, to support and influence youth employment and self-employment in the capital. Working with private-sector investment, the British Council created the Skills Hub as a virtual and physical

space, offering resources, skills development support, expertise, and knowledge sharing, thus catering to the needs of young Ghanaians by providing them with access to innovative products and spaces. Through the Skills Hub, young people have access to training to develop long-term transferrable skills for the Ghanaian and global marketplace. Alongside this, the International Centre for Transformational Entrepreneurship (ICTE) at Coventry University, working with the British Council, established the Transformational Incubator in June 2016 to support both local start-up and growth-oriented businesses.

The Transformational Incubator was exploratory in nature and intended to last for an initial period of six months and initially with 25 incubatees. As the project progressed, it was agreed to extend the period of support to nine months to ensure that as many businesses as possible could make positive progress towards start-up or growth and investment readiness. As a collaborative venture, the incubator was initiated to find solutions for the graduate unemployment problem in Ghana and commenced by assisting Coventry University alumni to build a transformational entrepreneurial mind-set and approach. The support provided through the incubator is delivered through a blended learning approach. This combines face-to-face contact, mentoring, formal training at the Skills Hub, and also online training, mentoring, and support through the Coventry University virtual learning environment. The project started with Coventry University alumni as the university provided the initial investment. The aim and ambition, however, were to test the model prior to plans to widen the reach over time. From the outset, the experiences of the incubatees in starting businesses or diversifying and growing existing businesses were intended to feed into the development of the incubator, so that the services and mode of delivery were appropriate for the local context and need. The initial model has provided a blueprint for developing place-based approaches to incubator support which can be extended to other countries and include graduates from any university.

The incubator programme offered a unique opportunity for participants to acquire business and leadership skills needed to grow transformational businesses as well as further exposure and integration with the Ghana Entrepreneurship Ecosystem. The programme aimed to deliver the following:

- Workspace and appropriate facilities to 25 graduates of Coventry University.
- Access to mentoring, networking, and other enterprise development opportunities to Coventry University alumni in Ghana.
- Activities that will provide opportunities for Coventry University students to gain entrepreneurial exposure in Ghana.
- Foster the development of knowledge, information, and links around enterprise and community resilience.

The programme adopted a blended approach (both face-to-face and online), with sessions led by both the British Council and ICTE. Due to restricted availability of the entrepreneurs as they maintained the daily operations of their businesses, the programme ran on a monthly basis with an attendance requirement of three days a month. ICTE provided bi-monthly face-to-face workshops covering investment preparedness, business planning, and transformational entrepreneurship as well as online mentoring. In addition to this, British Council provided further support in the form of face-to-face coaching, online mentoring, pitch training, coworking/meeting space, and experiential trips.

The catalyst for the incubator was the launch of the Coventry University Africa Institute for Transformational Entrepreneurship (AITE). It was felt that a specific project should be implemented to help AITE gain traction and focus on activities within a specific region. The collaboration and support of the British Council Ghana was vital to the project and provided a means to start to address the socio-economic and graduate unemployment problems experienced in Accra and the surrounding communities. The British Council support was crucial due to their long-standing connections and access to the market. Recruitment was a combined effort between the British Council and Coventry University, both of which targeted alumni, inviting them to participate in the project along with AITE. The following provides a sample of the businesses that participated in the first phase of this project. The names of the businesses have been changed to provide anonymity.

Case 1 Supply Chain Co.

Supply Chain Co. was registered as a business in November 2016, and it works with 300 farmers in Northern Ghana. It currently employs four permanent staff, three of which are field-based farming specialists, working directly in support of farmers, and one is a project manager. The business owner joined the incubator in order to help grow the customer base of the company. The main objectives of the company are as follows:

- Provide farmer-based organisations (FBOs) with access to basic farm inputs and services.
- Link FBOs to ready and reliable markets for their produce/commodities.
- Improve yields through a range of extension service delivered to FBOs from the start of the farming season to the end.
- Provide all contracted farmers with insurance against drought and fire.

Initially it seemed that the value proposition aimed at FBOs was quite broad-based and consequently difficult to manage through a period of growth. The key areas were described as provision of inputs and production services to improve yield, access to credit, introduction of appropriate technology, skills transfer, guaranteed and fixed pricing structures, and reliable market access. Through the incubator, mentors supported a range of business improvements, with a view to creating greater operational clarity and a focus on fewer key areas in the value proposition. Due to the range of services, establishing a robust evidence base for demand was providing significant challenges. It is here, therefore, that improving knowledge of the external environment significantly shifted thinking on the design of the business model. In this sense, the need to deliver real business growth generated significant questions about the owner's level of knowledge in key areas such as resource planning, operations, and a deep understanding of the customer/segmentation. These limitations were identified as the business owner attempted to formalise their ideas in a reflective report and business plan. This stage can often be overlooked both by entrepreneurs who are not engaged in any kind of

educational or incubation programme and, indeed, by students in higher education who are simply learning about entrepreneurship from a theoretical perspective. The connection to education 'through' entrepreneurial activity ensures that every decision is visualised as a real-world endeavour:

> You need to imagine your company name as branding on all your equipment, grain sacks, truck livery, on clothing etc. You need to develop the brand. Have someone design a logo for you and think about what Image you want to portray through it. It's not just about reaching your customers, but about maybe creating the story behind your business and setting out your vision and mission for the business. (Mentor)

It is only by engaging with training and education 'through' entrepreneurship do we find that the learner's experience is totally connected to the challenge at hand. This leads to greater appreciation of context when subsequently reading theoretical accounts, in this case relating to marketing and branding.

Case 2 Uniform Workshop Co.

Unlike case 1, which describes a more established firm, Uniform Workshop Co. represents a business idea from a nascent entrepreneur. The value proposition here is to provide primary and secondary school education uniforms (B2C) as well as workwear (uniforms) in large quantities to business customers. The economies of scale would enable lower production cost to be passed on to the customers. An additional value proposition is to offer image consultancy and fabric advice for businesses (B2B) wishing to commission original and bespoke workwear.

In this case, a key focus for the incubation activities was to help the entrepreneur refine and improve the vision for the company and its intended client base. The incubatee tried to balance both drivers for cost reduction and quality in describing the customer profile. Their conception of the business model remained somewhat confused. However, the challenge of business model improvement in practice would require them to refine and unpack their offering much more carefully:

> You aren't really explaining how your gain creators are being mapped against your specific customer profiles. You could unpack these relationships much more. You say that customers want advice on style fabric and delivery, but what about value for money, consistency and service. I think there are a number of other value propositions you could explore if you segmented your markets more effectively. (Mentor)

Case 3 Estates Construction Co.

Case 3 represents a business that is in the process of start-up, and the entrepreneur is pitching the Estates Construction Co. business plan to potential investors and shareholders including angel investors to secure the funds required to start-up and grow the company in the Ghanaian market. As investment is critical to this project, this entrepreneur aims to use the incubator to refine his plans and pitch as they need to be robust enough to withstand the scrutiny of potential investors. Estates Construction Co. is an estate development and construction company focusing on affordable housing development primarily in Ghana, with a view to expansion in the wider West African sub-region.

A key point of learning for this entrepreneur was the operationalisation of the business and moving from a concept (albeit well researched and refined) to an implementation plan. As with case 1, it is this process of direct engagement with the external environment that develops deeper opportunities for experiential learning and for the refinement of initially theoretical knowledge and ideas. A key area for improvement of the business plan is in the environmental analysis and knowledge about the external business context and customer segments. In fact this area was found to be the weakest in most of the incubatee's plans and an area where experiential learning was able to be most effective.

Whilst the incubator is deemed by the 25 participants to have provided valuable support, only around 4 are ready to launch viable businesses at this stage. An important lesson learned from this process as an experiential learning case is that not everyone is able move through a programme at the same rate and with a similar level of opportunity for learning. For this reason there needs to be much greater flexibility over

the potential for participants to complete a programme in a given period. Flexibility, due to the experiential, learner-centric nature of this way of providing entrepreneurial education and support, is a central theme (Kolb et al. 2001; Mainemelis et al. 2002). Personal development therefore is what needs to drive this process rather than a fixed curriculum of learning.

Discussion

Whilst EE necessarily starts with the entrepreneur, it is evident from both ELT and incubator literature that experience of and engagement with the wider ecosystem must form a critical part of entrepreneurial development. It is for this reason that the nature and role of entrepreneurship as part of regional development policy must be considered. The global environment is characterised by various challenges such as income inequality, jobless growth, lack of leadership, and rising geostrategic competition (WEF 2015). Although entrepreneurship is cited as an important means to tackle these (Pretorius et al. 2005; Bosma et al. 2007; Gibb and Hannon 2006), individual entrepreneurs are struggling to sustain socio-economic development and, especially in a developing context, entrepreneurship does not always support local and national economic performance. What is needed are the right capability, capacity, ecosystems, and policies to help successfully transform the socio-economic landscape. Sautet (2013) and Maas and Jones (2015) underline that whilst entrepreneurship has the capacity to be socially productive, it can struggle to address these major challenges. It is clear that entrepreneurial activity which focuses predominantly on the individual entrepreneur (or indeed focuses solely on the local region) will probably not have the desired positive impact on national socio-economic development. Therefore, a balance between a focus on individual entrepreneurial activities and society-wide changes is what is required. Here we can appreciate the need for any such value propositions to be both informed by strong personal values and commitment to effecting change, which are directed by positive, pro-social entrepreneurial awareness of community and societal need. Within this context a systemic (or ecosystemic) approach outlines the broader orientation

towards combining the individual and other sub-systems such as society and institutions to interact and reinforce so as to create a positive framework for opportunity development. In this sense, it is suggested that systemic entrepreneurship should be socially productive and go beyond the needs of the individual and their immediate ego network if it is to have a positive impact on socio-economic growth (Sautet 2013).

Rethinking the way entrepreneurship is promoted is therefore called for and the focus of this drive is systemic that can lead to transformational results. Miller and Collier (2010, p. 85) suggest that transformational entrepreneurship: "transcends economic terms and emphasizes the centrality and value of people, their vocations, and the many levels of relationality involved in entrepreneurship, in addition to the technical aspects of the business".

The European Commission Green Paper 'Entrepreneurship in Europe' outlines that "Entrepreneurship is considered one of the most important factors contributing to economic development and has numerous benefits for society. It drives innovation, creates jobs, develops human potential and satisfies new customer demands" (Jaén et al. 2013, p. 16). However, as Schoar (2010) outlines, entrepreneurship is a multifaceted concept and is all too often treated homogeneously. In this critique, Schoar offers a valuable distinction between two types of entrepreneurs: 'subsistence' and 'transformational'.

> One can argue that there are at least two fundamentally different groups of entrepreneurs: First, there are those who become entrepreneurs as a means of providing subsistence income, which I will call the subsistence entrepreneurs. And second, there are those entrepreneurs who aim to create large, vibrant businesses that grow much beyond the scope of an individual's subsistence needs and provide jobs and income for others. (Schoar 2010, p. 58)

A key problem with entrepreneurship for economic development is that very few new start-ups grow to become medium- or large-sized businesses and do not always create employment opportunities. There are several reasons for this. For example, the concept of 'liability of newness' (Stinchcombe 1965) considers that start-ups may have only minor survival chances

because of the time needed to build functional relationships and networks with larger and more established firms (also observed by Lubell 1991;Van Stel et al. 2005). Here Van Stel et al. (2005) refer to the lack of a business ecosystem linking larger firms to smaller firms to support start-up development and growth. Additionally, administrative barriers and the national regulatory environment may negatively impact and curtail entrepreneurial start-up and growth in some regions (Singh et al. 1986; Van Stel et al. 2005). As Schoar describes, there is evidence to suggest that not only is there a distinction between subsistence and transformational entrepreneurship, there is also a "negligible fraction of the entrepreneurs transition from one type to the other" (p. 59). Therefore, it is proposed that much policy in this area fails due to its assumption that subsistence entrepreneurship is the first step on a transition towards transformational entrepreneurship.

Based on the experiences of developing incubator and educational programmes through experiential learning, academic literature, research, and policy development, the framework proposed for transformational entrepreneurship development is as given in Fig. 12.1.

Central to the framework is a process of continuous development and this is pursued through the balance of two axes—'efficacy' and 'proposition'. Each axis represents the ideal balance between internal and external dimensions.

Entrepreneurial efficacy, or entrepreneurial self-efficacy (ESE), is commonly regarded as an essential determining characteristic of the entrepreneur (McGee et al. 2009). Whilst measures for ESE, considering it as an intentionality model, refer to features such as entrepreneurial orientation, intention, and behaviour, it may be generically described as a (1) combination of the entrepreneurial characteristics of the individual and (2) the characteristics of a positive and vibrant external environmental/ecosystem. From an educational perspective considering the role of continuous development, it is possible to conflate individual entrepreneurial characteristics into the broader domain of knowledge. For the purpose of the framework, knowledge is referred to as the broad act of knowing and therefore encapsulates skills, practice, intuition, motivation, orientation, and ability. These are all individual (internal) attributes which may be improved through processes of experiential learning and personal development via

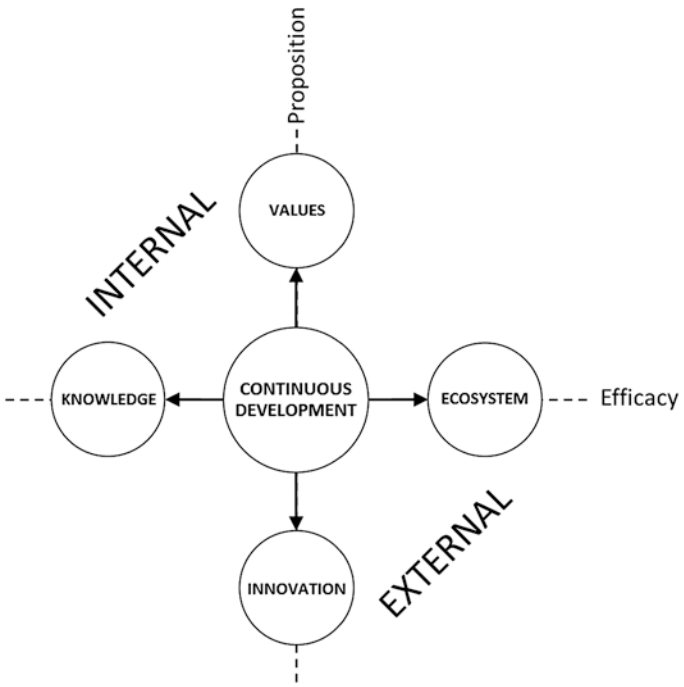

Fig. 12.1 A framework for transformational entrepreneurship

interaction with external experience. Therefore, ESE requires both internal and external dimensions for entrepreneurial enactment.

The 'efficacy' axis involves continuous development of knowledge (internal), represented by self-improvement, learning, and also building better knowledge of the business environment and markets. The external dimension of this axis involves the continuous development of the ecosystem. This refers to actions relating to striving to create positive policy environments, support networks, partnerships, and strategic alliances. The continuous development of entrepreneurial efficacy therefore requires improvements and developments in both these internal and external dimensions in a balanced and harmonious manner.

In addition to the efficacy axis, there needs to be a proposition. Emerson (2003) suggests that the proposition has often been viewed as either offering social or economic value and instead should be seen as

indivisible. A blended approach is offered by Emerson combining economic, social, and environmental benefit and therefore "requires us to re-examine our understanding of the nature of capital, the methodology for calculating rates of real return to investors, and the role of for-profit and non-profit organizations in the value creation process" (p. 33). It may be suggested that the proposition represents value-based innovation, that is, innovation supported by strong entrepreneurial ethics and prosocial motivation.

Like the efficacy axis, the proposition axis also comprises internal and external dimensions, which relate to 'values' and 'innovation'. The continuous development of values (internal) involves developing one's own personal value set and goals, being responsive to societal and community needs and also communicating these to generate shared values. Whilst personal values are intrinsic to a proposition for transformational entrepreneurship, these will have little societal influence without externalising them as 'innovation' (external). Innovation is associated here with market disruption or societal impact and therefore is categorised as an external dimension of the proposition. In this sense, the continuous development of innovation enables a business to grow, develop, diversify, evolve, and respond to societal needs.

Since both the efficacy and proposition axis comprise of internal and external dimensions, we may combine the two internal dimensions and the two external dimensions. Therefore externally these form the 'innovation ecosystem' and internally the individual entrepreneur possesses 'value-based knowledge'.

Implications for Practice

It is clear that the process of experiential learning is highly context-specific and learner-centric as it is each incubatee's interaction with real-world opportunity which provides the environment and dynamic for learning. This is a significant challenge for any formal programme of learning and development support 'through' entrepreneurship. The support process can be considered as involving three phases: (1) pre-incubation, (2) incubation, and (3) acceleration. When developing a curriculum of support,

we observe that nascent entrepreneurs, who may need help making the first steps (pre-incubation), invariably require similar help and direction to get started. It is feasible therefore to develop generic support for this group of learners which may be delivered in a face-to-face synchronous manner. Similarly, those established businesses approaching the acceleration phase may also have broadly similar requirements since there is greater emphasis in this stage towards access to finance, policy engagement, regulations and legislation, and so on which are equally relevant to all businesses within a given country context. Again, in phase 3, it is appropriate to develop generic support which may be delivered in a synchronous manner. However, findings from this work point to phase 2 as being the most varied and challenging to manage. It is in phase 2 where the variation (characteristics of the individual and external context and opportunities) becomes most evident and learning and support need to be highly tailored to the individual entrepreneur and business context. Synchronous learning becomes challenging to schedule as all participants will progress through learning cycles at different rates and with much greater variety of needs than are exhibited in either phase 1 or phase 3. It is here, therefore, that support through asynchronous learning is most beneficial.

Conclusions

The Transformational Incubator has provided an important case for Coventry University to establish a place-based approach to business incubation and support through a process of blended learning based upon ELT. The practical nature of delivering education 'through' entrepreneurship is a suitable context for ELT but also requires a great deal of learner-centricity and flexibility of the programme. The individual nature of business experiences which connects directly with the external environment makes the delivery of support and the management of the iterative learning process (which in experiential learning is driven by the individual learner's personal development) a significant challenge. In this sense, rigid programme schedules of delivery will fail to drive the learning dynamic. The aim of the programme has been to embed a blended, experiential learning approach

to practice-based entrepreneurship education via an incubator designed to support scalable business start-up and growth. From the programme, 4 out of 20 participants are currently ready to launch businesses and, as a continual process, it is expected that all of the participants will continue to develop learning based around the support of the two key axes of 'efficacy' and 'proposition'. This is presented in a resulting generic framework for transformational entrepreneurship experiential learning.

References

Acs, Z. J., Autio, E., & Szerb, L. (2014). National systems of entrepreneurship: Measurement issues and policy implications. *Research Policy, 43*(3), 476–494.

Argyris, C., & Schön, D. (1978). *Organisational learning: A theory of action perspective*. Reading: Addison-Wesley.

Blichfeldt, B. S., & Andersen, J. R. (2006). Creating a wider audience for action research: Learning from case-study research. *Journal of Research Practice, 2*(1), 1–12.

Bosma, N., Jones, K., Autio, K., & Levie, J. (2007). *Global entrepreneurship report: 2007 executive report*. Babson Park/London: Babson and London Business School.

Boud, D., Cohen, R., & Walker, D. (1993). *Using experience for learning*. Buckingham: McGraw-Hill Education.

Boud, D., Keogh, R., & Walker, D. (2013). *Reflection: Turning experience into learning*. Abingdon: Routledge.

British Council (BC). (2017). https://ei.britishcouncil.org/news/country-coordinates-ghana

Dobson, S., & Selman, P. (2012). Applying historic landscape characterization in spatial planning: From remnants to remanence. *Planning Practice and Research, 27*(4), 459–474.

Elfors, S., & Svane, Ö. (2008). Action research for sustainable housing: Theoretical and methodological implications of striving for research as a tool for change. *The Journal of Transdisciplinary Environmental Studies, 7*(2), 1–12.

Emerson, J. (2003). The blended value proposition: Integrating social and financial returns. *California Management Review, 45*(4), 35–51.

Fayolle, A., & Gailly, B. (2008). From craft to science: Teaching models and learning processes in entrepreneurship education. *Journal of European Industrial Training, 32*(7), 569–593.

Gibb, A., & Hannon, P. (2006). Towards the entrepreneurial university? *International Journal of Entrepreneurship Education, 4*, 73–110.

Hackett, S. M., & Dilts, D. M. (2004). A systematic review of business incubation research. *The Journal of Technology Transfer, 29*(1), 55–82.

Harman, P., & Read, L. (2003, June 15–18). Supporting incubation in the UK through the development of benchmarks. *UKBI: International Council for Small Business, 48th World Conference*, Northern Ireland, p. 2.

International Monetary Fund (IMF). (2016). *Regional economic outlook. Sub-Saharan Africa*. Washington, DC: International Monetary Fund, Publication Services.

Jaén, I., Moriano, J. A., & Liñán, F. (2013). Personal values and entrepreneurial intention: An empirical study. In A. Fayolle, P. Kyrö, T. Mets, & U. Venesaar (Eds.), *Conceptual richness and methodological diversity in entrepreneurship research* (pp. 15–31). Northampton: Edward Elgar.

Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development*. Englewood Cliffs: Prentice-Hall.

Kolb, A. Y., & Kolb, D. A. (2005). Learning styles and learning spaces: Enhancing experiential learning in higher education. *Academy of Management Learning & Education, 4*(2), 193–212.

Kolb, D. A., Boyatzis, R. E., & Mainemelis, C. (2001). Experiential learning theory: Previous research and new directions. *Perspectives on thinking, learning, and cognitive styles, 1*(2001), 227–247.

Kyrö, P. (2005). Entrepreneurial learning in a cross-cultural context challenges previous learning paradigms. The dynamics of learning entrepreneurship in a cross-cultural university context. *Entrepreneurship Education Series, 2*, 68–102.

Lackéus, M. (2015). *Entrepreneurship in education – What, why, when, how. Entrepreneurship 360* (Background paper). Paris: OECD Publishing.

Lefebvre, H. (1991). *The production of space*. Oxford: Blackwell.

Lubell, H. (1991). *The informal sector in the 1980s and 1990s*. Paris: OECD.

Maas, G., & Jones, P. (2015). *Systemic entrepreneurship: Contemporary issues and case studies*. London: Palgrave Publishing.

Mahieu, R. (2006). *Agents of change and policies of scale: A policy study of entrepreneurship and enterprise in education* (Doctoral dissertation). Svenska och samhällsvetenskapliga ämnen.

Mainemelis, C., Boyatzis, R. E., & Kolb, D. A. (2002). Learning styles and adaptive flexibility: Testing experiential learning theory. *Management Learning, 33*(1), 5–33.

McGee, J. E., Peterson, M., Mueller, S. L., & Sequeira, J. M. (2009). Entrepreneurial self-efficacy: Refining the measure. *Entrepreneurship Theory and Practice, 33*(4), 965–988.

McNiff, J., Lomax, P., & Whitehead, J. (2005). *You and your action research project*. London: Routledge Falmer.

Miller, R. A., & Collier, E. W. (2010). Redefining entrepreneurship: A virtues and values perspective. *Journal of Leadership, Accountability and Ethics, 8*(2), 80.

Mwasalwiba, E. (2010). Entrepreneurship education: A review of its objectives, teaching methods, and impact indicators. *Education + Training, 52*(1), 20–47.

Pittaway, L., & Cope, J. (2007). Entrepreneurship education: A systematic review of the evidence. *International Small Business Journal, 25*(5), 479–510.

Pretorius, M., Nieman, G., & Van Vuuren, J. (2005). Critical evaluation of two models for entrepreneurial education – An improved model through integration. *International Journal of Educational Management, 19*(5), 413–427.

Sautet, F. (2013). Local and systemic entrepreneurship: Solving the puzzle of entrepreneurship and economic development. *Entrepreneurship Theory and Practice, 37*(2), 387–402.

Schoar, A. (2010). *The divide between subsistence and transformational entrepreneurship* (pp. 57–81). National Bureau of Economic Research. Chapter URL: http://www.nber.org/chapters/c11765

Schön, D. (1983). *The reflective practitioner: How professionals think in action*. New York: Basic.

Singh, J. V., Tucker, D. J., & House, R. J. (1986). Organizational legitimacy and the liability of newness. *Administrative Science Quarterly, 31*(2), 171–193.

Stinchcombe, A. L. (1965). Organizations and social structure. In J. March (Ed.), *Handbook of organizations* (pp. 153–193). Chicago: Rand McNally.

Van Stel, A., Carree, M., & Thurik, R. (2005). The effect of entrepreneurial activity on national economic growth. *Small Business Economics, 24*(3), 311–321.

Voisey, P., Gornall, L., Jones, P., & Thomas, B. (2006). The measurement of success in a business incubation project. *Journal of Small Business and Enterprise Development, 13*(3), 454–468.

Voisey, P., Jones, P., & Thomas, B. (2013). The pre-incubator: A longitudinal study of 10 years of university pre-incubation in Wales. *Industry and Higher Education, 27*(5), 349–363.

World Economic Forum (WEF). (2015). http://reports.weforum.org/outlook-global-agenda-2015/top-10-trends-of-2015/

13

When Pedagogic Worlds Collide: Reflections on a Pan-European Entrepreneurship Education Project

Kate Penney, Dimitris Bibikas, Tim Vorley, and Robert Wapshott

Introduction

With the launch of its Entrepreneurship 2020 Action Plan in 2013, the European Commission set out its agenda for how entrepreneurship could help tackle the problems associated with the 2008 financial crisis. The Commission identified three high-priority areas for attention and action:

1. entrepreneurial education and training to support growth and business creation;
2. removing existing administrative barriers and supporting entrepreneurs in crucial phases of the business life cycle;
3. reigniting the culture of entrepreneurship in Europe and nurturing the new generation of entrepreneurs. (EC 2013a)

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In this chapter we present how STARTIFY7, as a large EU project funded by Horizon 2020, has sought to respond to the Entrepreneurship 2020 Action Plan across the three high-priority areas. The STARTIFY7 project was created as a thematically focused and lean-training summer academy system with the aim of creating pan-European teams of young entrepreneurs in the information and communications technology (ICT) sector. Before setting out the experiential nature of the STARTIFY7 project and its outcomes, it is helpful to address some of the wider background and context to the STARTIFY7 project and how its focus was developed.

Background

As the European Union still seeks to rebalance in the wake of the financial crisis, the future growth of member states is contingent on their ability to support the growth of private enterprises. The strength of private sector growth is premised on the entrepreneurial foundations of an economy in which the European Commission has come to acknowledge that member states face a range of significant challenges in realising their entrepreneurial potential. The Entrepreneurial Action Plan sets out the approach to overcome obstacles, raise ambition, and transform the entrepreneurial culture, with a view to creating more entrepreneurs. More specifically, promoting youth entrepreneurship has become an important focus for future growth (De Clercq and Honig 2011) and particularly in the ICT sector where there are low barriers to entry (Sheehan and McNamara 2015).

The ICT industry in Europe represents approximately 4.3% of the total EU GDP and provides over six million jobs. However, Europe is struggling to create new companies, make them grow, and turn them into global leaders. This is particularly true for ICT start-ups, where the most innovative new endeavours are largely created and operated outside of Europe. Europe lags behind economic rivals in North America and in Asia when it comes to ICT enterprises, especially those led by young people. ICT start-ups founded by young entrepreneurs that command high valuations typically hail from the United States. Nevertheless, there is potential for growth in this area of the European economy with the European Commission (2016) estimating that if the performance of the

leading EU nations could be replicated across the EU, somewhere between 400,000 and 1.5 million jobs could be created.

The frustrated potential for highly successful entrepreneurship in the ICT sector is set against a backdrop of persistently high youth unemployment in many European economies. Greece and Spain report rates of around 45% for youth unemployment, while Italy (38%) and Portugal (28%) indicate somewhat better, but far from ideal, situations. Allied to such concerns around high levels of youth unemployment, entrepreneurship and especially ICT entrepreneurship has been identified as a potential contributor towards a solution.

The European Commission launched the Communication on the Entrepreneurship 2020 Action Plan on 9 January 2013 as well as announcing a number of specific actions to support ICT entrepreneurship (EC 2013b). The aim of the European Commission's strategy was to support young entrepreneurs, as digital natives, to pursue entrepreneurial opportunities in the field of ICT. The overarching objective was specified as being to improve the framework conditions of the European ICT innovation ecosystem. More specifically, STARTIFY7 was responding to a call to create a Europe-wide system of summer academies focused on ICT entrepreneurship, with the aim to support the development of ICT-related business ideas. Specifically, the aim was in terms of supplying new digital products and services as well as in terms of the demand for and smart use of these technologies. Framed in this way, young ICT entrepreneurs are cast as both creators and users of novel ICT products and services. Through creating new businesses, opportunities for forging innovative ways of doing business might be created as well as stimulating innovation in more traditional areas of the economy.

The emphasis placed on youth-oriented education and training is apparent, yet there are persistent concerns in the academic literature surrounding whether what is practised in entrepreneurship education is effective and subject to the same rigour as other aspects of academic endeavour (Fayolle et al. 2016; Neergaard et al. 2017; Rideout and Gray 2013). While there are many new entrepreneurial ecosystems emerging in Europe on a local and/or national level (e.g. grassroots, corporate, or government-led), these initiatives have not yet resulted in stronger and globally competitive European ICT start-ups. Europe is still seeking a

formula for entrepreneurship education that helps deliver the desired outcomes, and a need has been identified to extend and enrich similar existing actions while focusing on the ICT sector.

In developing our perspective on how to help address these problems, our initial review of contemporary practice in Europe concluded that ICT entrepreneurship initiatives are characterised by two major hurdles: (1) fragmentation of European ICT entrepreneurship education and training programmes and (2) general absence of a 'learning-by-doing' training approach. Moreover, the training landscape was found to place limited emphasis on building collaboration within entrepreneurial teams or across projects and tended towards generic training interventions as opposed to infusing these with sector-specific insight.

The STARTIFY7 project sought to address these challenges through establishing a system that included knowledge, skills, and attitudes, which were developed and applied in relation to sector-specific challenges and opportunities. This chapter shares insights and experiences with a view to contributing to discussions of practice in this field, both in relation to the experiential approach of the project and more widely. The remainder of this chapter introduces the STARTIFY7 project and situates its pedagogic foundations, before going on to consider the outputs and more experiential outcomes. The chapter then reflects on the experiential development of STARTIFY7 academies, before discussing how the project stands as an example of a project that delivers against the three high-priority areas as set out in the Entrepreneurship 2020 Action Plan.

Introducing the STARTIFY7 Project and Context

STARTIFY7 is a team-building, thematically focused, and lean-training summer academy system for young aspiring entrepreneurs. Seven thematic summer academies, as shown in Table 13.1, were delivered across summer 2015 and summer 2016 by a consortium of ten partners. The consortium was made up of universities in each of the seven European countries hosting an academy, along with representatives from business start-up and business incubation organisations. The academies brought together academics, entrepreneurs, and industry leaders from across

Table 13.1 STARTIFY7: Themes, locations, and participant numbers

Theme	Country	Participants
Digital health	UK	40
Internet of things	Germany	40
Cyber security	Italy	35
Digital transportation	Greece	46
Industrial simulation	Spain	45
Next generation enterprise information systems	Poland	41
Social and enterprise networks	Netherlands	40

Europe and the United States with experience in each of the seven sectors. The breadth of expertise of the teaching and mentoring team was regarded as essential to the success of the STARTIFY7 programme which, while led by the university partners in each country, was delivered as a cross-sector and cross-border collaboration.

Participants were recruited via an open call promoted on the project website, various European platforms, and through the networks of consortium members. Applicants, who were mostly university students, were asked to submit letters of motivation and a simplified business idea proposal. For the academies, over 1600 applications were received, and these were shortlisted on the overall quality of the application, the applicant's motivation to join the academy and willingness to contribute to the community.

The STARTIFY7 programme focused on targeting the specific needs of participants to develop entrepreneurial and enterprising skills as identified by a pan-European training needs analysis conducted as part of the project. Details on how the project was grounded in an initial training needs analysis and literature review are reported elsewhere (see Bibikas et al. 2017), but our training needs analysis also signalled that among our prospective participant groups there was relatively limited awareness of business sub-sectors. As such, this was an important focus as well as developing the enterprising and entrepreneurial knowledge and skills of participants.

Conducting this research as a consortium served as an important foundation on which to ground the design and delivery of the STARTIFY7 programme. Most specifically, it moved us beyond an over-reliance on what we might assume potential participants and other stakeholders felt

were needed in entrepreneurial education. Instead, building a detailed picture of where enterprising and entrepreneurial development is needed ensured that the STARTIFY7 programme was both relevant and added value. The training needs analysis was also helpful from a consortium team-building perspective as it provided a clear point of focus for the STARTIFY7 project by emphasising the common challenges faced by the pan-European partnership.

Reminiscent of McIntyre and Roche (1999), the training needs analysis identified that existing provision continues to focus on either the business start-up process or developing the entrepreneurial capabilities of participants. When comparing the United States with Europe, it is also apparent that the dominant perspective tends to see a more traditional approach towards enterprising and entrepreneurial education favoured, whereas the US experience tends to incorporate capacity-building, knowledge, and developing entrepreneurial attitudes (Torrance 2013). A central challenge for STARTIFY7, therefore, was to develop a more joined-up and experiential approach that was about *doing* entrepreneurship and exposing participants to regulators, businesses, and users in their respective sectors of the STARTIFY7 academies.

In keeping with the observations of Rideout and Gray (2013), that traditional entrepreneurship educational models have not adequately supported the development of entrepreneurial skills, knowledge, and attitudes, the training needs analysis also emphasised the requirement for the STARTIFY7 programme to have an action-based, applied, and experimental approach. That said, as an academically informed exercise, the project team was also sensitive to the fact that in the field of entrepreneurship education 'action and intervention have raced far ahead of the theory, pedagogy and research needed to justify and explain it' (Rideout and Gray 2013, p. 346).

In their influential assessment of what are effectively 'varieties of entrepreneurship education', Neck and Greene (2011) set out the different pedagogic approaches towards entrepreneurship education, ranging from the descriptive to the action-based. Neck and Greene (2011) distinguish between the pedagogic approaches of four 'worlds of entrepreneurship' as follows: (1) the *Entrepreneur World*, which is about describing entrepreneurial heroes, myths, and personalities; (2) the *Process World*, which is

primarily focused on the planning and prediction around new business creation; (3) the *Cognition World*, which is about the thinking and decision making that shapes entrepreneurial activity; and (4) the *Method World* view emphasises value creation and the practice of entrepreneurship. STARTIFY7 draws across these pedagogical approaches towards teaching entrepreneurship in developing the academy programme—what we refer to as *colliding* these worlds.

The approaches differ in how they view the way that entrepreneurship is understood and taught. There has been criticism of more traditional approaches to entrepreneurship education, notably teaching about entrepreneurship and about the process of entrepreneurship, associated with the entrepreneurs' world and the process world due to their descriptive and predictive nature. Such world views fail to acknowledge the innate idiosyncrasies of entrepreneurship and the entrepreneurial process but provide learners with a basic overview about entrepreneurs and the process of business formation. Conversely, the method perspective regards entrepreneurship as a set of practices, where the emphasis is on the iterative nature of learning, creativity, and experimentation (Neck et al. 2014). The method world therefore emphasises how developing appropriate skills, rather than learning to follow a particular set of steps, enables participants with a flexible approach to entrepreneurship that is well-suited to uncertain contexts. The fast-moving world of ICT is a prime example of a sector where such uncertainties persist.

Conscious of these contrasting perspectives, STARTIFY7 assumed a stratified approach that sought to collide the pedagogic worlds of entrepreneurship education. The result saw a programme that highlighted the importance of flexible processes that allow participants to realise different ends while helping the same participants to understand, develop, and practise the skills and techniques to be more entrepreneurial and enterprising in developing entrepreneurial ideas with mentoring and real-time feedback. STARTIFY7 was designed to incorporate an emphasis on entrepreneurship both as a process and method, blended with the key principles of Reis' (2011) lean methodology, thereby bridging the gap between theory and practice. The STARTIFY7 academies provided an environment where participants, often with little if any entrepreneurial

experience or education, could play, experiment, and reflect on different entrepreneurial ideas and opportunities.

The STARTIFY7 programme was designed to enable participants to acquire flexible skills via a method approach combined with the business basics that can be well-understood via a process approach. STARTIFY7's expert-informed underpinnings represent a core strength of the programme while enabling flexibility to allow for continuous negotiation between the project partners, participating young people, trainers (e.g. participating academics, practitioners, incubators, accelerators), coaches, mentors, and investors (angels and venture capitalists) through user involvement and engagement. Interestingly, and of relevance to this edited collection, is how on balance the nature of STARTIFY7 became more experientially focused.

STARTIFY7: From Design to Implementation

As set out above, this chapter provides reflections on the development of the STARTIFY7 programme, as a basis of learning for others who are engaged in the development of entrepreneurship education projects, and specifically those projects with a cross-border focus. Developing and delivering the project across different academies as a pan-European collaborative consortium required a means of balancing sufficient structure to provide direction and a degree of cohesion while maintaining sufficient flexibility for each academy to be tailored to its particular thematic focus.

To this end we designed and developed a blueprint, as a framework for delivering the seven thematic academies. The blueprint set out how the pedagogic approach should be implemented and the common pillars of content for the programme as identified through the training needs analysis. Although the blueprint provided a framework for delivering each academy within certain agreed parameters, it was also dependent on entrepreneurial educators developing a shared pedagogic approach to utilising it to the same ends. In relation to STARTIFY7 as a project, this was established in part through co-producing the proposal and through the consortium-wide project meetings, as well as in undertaking the

training needs analysis which highlighted shared issues and challenges. In this way, the STARTIFY7 blueprint provided those coordinating and involved in delivering the international academies with a framework to implement the academy in a way that met the needs of their thematic focus best.

In developing the programme of activity for each academy that spanned the pedagogic portfolio described by Neck and Greene (2011), the coordinators of the STARTIFY7 programme ensured that participants had a suitably blended learning experience. The objective was not to adhere to a particular 'world view' but rather ensure that through the programme these worlds collide to create a productive and developmental learning experience. As asserted by Welsh et al. (2016, p. 127), 'Entrepreneurial education must take advantage of individual differences among our entrepreneurship students', and this is particularly true in the case of the STARTIFY7 pan-European academies. The objective was not to teach a prescribed approach of entrepreneurship, but rather develop a programme that empowered the participants to develop an understanding and awareness of entrepreneurial opportunities and challenges.

While ensuring that the programme of each STARTIFY7 academy drew on a suitable variety of pedagogic approaches to be accessible to, and engaging for, the participants, the blueprint also set out a series of learning outcomes as the basis of a common approach derived from the training needs analysis. These learning outcomes, as shown in Table 13.2, were delivered using the pedagogic approaches discussed above and where possible were reinforced by using different pedagogic approaches.

Table 13.2 STARTIFY7 learning outcomes

Key concepts (knowledge)	Key skills	Key attitudes
C1 Technical ICT knowledge	S1 Opportunity identification	A1 Entrepreneurial orientation
C2 Key challenges of the industry/sector/market	S2 Design thinking	A2 Flexibility
C3 Business management fundamentals	S3 Business planning	A3 Creativity
C4 European ICT landscape and entrepreneurship	S4 Pitching	A4 Initiative/leadership
	S5 Work in groups	A5 Problem solving
	S6 Time management	A6 Managing risk
	S7 Negotiating	A7 Responsibility

For example, lectures on business models were supported with real-world cases; seminars on business basics were consolidated through simulation activities and reflection sessions; pitching skills were developed though observation and practice. The skills and attitudes were primarily developed through more practice-based activities that embody the action-based approach of the academies but were again supported as appropriate.

The nature of the STARTIFY7 programme, and subsequently its learning outcomes, in responding to the call of the European Commission, fits with the distinctions of Hytti and Kuopusjärvi (2004) (cited by Bridge and O'Neill 2012) who identify the three different types of entrepreneurship programmes as those which (1) teach what entrepreneurship is, (2) teach how to be an entrepreneur, and (3) teach how to be entrepreneurial. Mindful of these distinctions, STARTIFY7 was primarily concerned with points 2 and 3 which emphasise the outcomes of new venture creation and developing enterprise skills for life.

Each academy had a high degree of autonomy in terms of its structure and delivery, although a core set of sessions were created by the consortium with associated curriculum content. Again, these were informed by the training needs analysis and were regarded as the building blocks of STARTIFY7. Curriculum maps were generated for each session identifying how learning outcomes should be covered with a range of suggested activities that could be adapted and implemented at each academy.

In addition to the common core learning components, there was an emphasis on practical activities and exercises in the design of the academies to support the development of entrepreneurial ideas and opportunities by the participants. As well as working on problems and challenges in the forms of simulations and living-lab case study challenges, it also afforded participants time to develop prototypes of their own entrepreneurial products, processes, and services. Over the duration of the STARTIFY7 academies therefore, participants had opportunities to engage in entrepreneurial practice and thereby learn from their own experiences.

The academies were ten-day thematically focused immersive entrepreneurial learning events, with participants selected from across Europe. The first week was based around a series of masterclasses and structured

activities that covered the core inputs. Alongside these core components, there were multiple idea generation and validation sessions, giving participants and teams the opportunity to share ideas. The second week was more concerned with supporting participants to develop their preferred entrepreneurial ideas using the tools and techniques from the first week. Across the two weeks, participants worked in teams supported by mentors, advisors, and experts to develop their business concept.

A final point in relation to the implementation of the STARTIFY7 programme was the importance attributed to engaging with businesses and entrepreneurs with experience in sectors relevant to each academy theme. This was deemed to enrich the learning experience of participants from both a process world and method world perspective, since they were actively involved in all aspects of the academy. With a network of c.190 contributors from a diverse range of backgrounds accessed through consortium members' networks and associated EC projects, engagement became a defining feature of the STARTIFY7 project. Each contributor brought their unique perspective and experience of starting-up, as well as providing industry-specific information about the kinds of challenges that projects might seek to target, offering technical guidance around ICT solutions and acting as mentors for teams and participants. The external partners also provided their reflections on the development and learning of the STARTIFY7 participants, thereby providing a basis to triangulate reflections on outputs and outcomes of the academies.

Outputs and Outcomes of STARTIFY7

While STARTIFY7 was evaluated by the European Commission according to a number of standard deliverables and outputs (i.e. participant numbers, webinars, investment-ready proposal, and business starts), it is apparent that there is an experiential value that is not captured. The European Commission is understandably keen to ensure that value for money has been achieved and deliverables met; however, without assessing the experiential outcomes of STARTIFY7, the wider value is not captured. Given that over the past two decades entrepreneurial education and learning has become more experiential learning, the means of

evaluating such initiatives need to be more appropriate. Indeed, Fayolle et al. (2016) highlight that it is notoriously difficult to measure the effectiveness of entrepreneurial education, so the challenge is for entrepreneurship educators to demonstrate our experiential impact as we would expect our students to demonstrate theirs.

Given that STARTIFY7 set out a number of learning outcomes, derived from the training needs analysis, they serve as appropriate criteria by which to evaluate the effectiveness of the experiential learning across each of the STARTIFY7 academies. The academies were held in 2015 (United Kingdom, Germany, and Italy) and 2016 (Greece, Poland, Netherlands, and Spain). While the assessment of the European Commission was focused on the outputs, our own evaluation focused more on the learning outcomes in terms of knowledge (C1–C4), skills (S1–S7), and attitudes (A1–A7).

In order to assess the experiential learning of participants, that is, beyond the outputs of the STARTIFY7 participants, and given that STARTIFY7 was not taken for academic credit, it follows that the experiential outcomes are arguably the most important. While there are difficulties associated with qualifying and quantifying the outcomes of experiential entrepreneurial learning, pre-academy and post-academy surveys were conducted and feedback was gathered from participants at each academy. Participants were invited to give short answers about what they had learnt during the STARTIFY7 academy as well as what they did not learn that they thought would have been useful.

The remainder of this section provides reflections about the learning outcomes in terms of each of the three areas looking across the seven academies. The statistical significance of findings has been tested and, where not statistically significant, is marked with an asterisk (*). There were 180 respondents among STARTIFY7 participants who completed the pre-academy and post-academy surveys and are used here as the basis of the analysis. The surveys do benefit from concurrent validity across the academies, having been completed by participants at academies with different thematic foci although with the same learning outcomes and core sessions as discussed above.

Knowledge

The first section of the pre- and post-academy surveys focused on the participants' perception of their knowledge in relation to four key areas. In relation to C1 (Technical ICT knowledge), participants increased by 23.11% ($p < 0.001$), while in relation to C2 (Key challenges of the industry/sector/market), participants increased by 23.33% ($p < 0.001$), C3 (Business management fundamentals) increased by 18.41% ($p < 0.001$), and C4 (European ICT landscape and entrepreneurship) increased by 22.33% ($p < 0.001$). T-tests showed that there is a positive relationship of each component for participants in increasing their knowledge in these areas. Notably, these learning outcomes are concerned with 'knowing about' rather than 'knowing how to'.

When looking at the impact of learning, all participants across the seven academies rated the development of knowledge as medium or high. Through the reflections it was apparent that the learning outcome C1 was about the technical expertise and support, while C2–C4 were generally regarded to provide new insights and understanding about doing business and the business environment. This was reflected in the qualitative comments provided by participants who emphasised the insights they gained into how to establish and operate a start-up venture alongside gaining industry-specific business knowledge. Interestingly these comments tended to emphasise entrepreneurship as a process, and this was fairly common among those participants with little or no education or background in business. Significantly it highlights the value of the process world alongside the method world and would appear to make the method world more accessible to some participants.

Skills

The second section of surveys focused on the participants' perception of their skills. T-tests indicated that there is a statistically significant positive relationship of each component for skills S1–S5 and S7, but the increases are not statistically significant with respect to S6* (Time management). In relation to the areas where the increase was statistically significant, S1

(Opportunity identification) increased by 13.38% ($p < 0.001$), S2 (Design thinking) by 6.97% ($p < 0.05$), S3 (Business planning) by 11.74% ($p < 0.001$), S4 (Pitching) by 18.37% ($p < 0.001$), S5 (Work in groups) by 7.48% ($p < 0.001$), and S7 (Negotiating) by 7.52% ($p < 0.001$). The skill where the STARTIFY7 programme did not result in a statistically significant increase was 'time management', with participants reporting high self-perception pre- and post-academy.

Interestingly in the midterm review, Bibikas et al. (2017) found S7 to not be a statistically significant factor in the 2015 academies. Feedback from this was integrated in the 2016 academies, the net effect of which was to see it become a statistically significant learning outcome in both the 2016 round and overall. The skills-related learning outcomes concern 'knowing how to' and are therefore particularly important with respect to entrepreneurship as a method. Some participants highlighted discrete skills in personal reflections that highlighted gaining insight on identifying client need and creating an effective pitch quickly. Others framed their learning in more general terms, reflecting on their acquisition of a range of skills relevant to creating a venture.

Overall 96% of participants reported they would recommend STARTIFY7 to others with an interest in entrepreneurship and/or starting their own business. Moreover, participants indicated that the programme had enhanced their personal development skills and that during their academy they had learnt something useful. In particular, skills linked to pitching and design thinking were highly cited by respondents.

Attitudes

Of the attitudes related to learning outcomes, a t-test found all except A6* (Managing risk) were statistically significant in their effect upon completing the STARTIFY7 programme. Of the statistically significant learning outcomes, A1 (Entrepreneurial orientation) increased by 13.47% ($p < 0.001$), A2 (Flexibility) by 4.14% ($p < 0.05$), A3 (Creativity) by 4.59% ($p < 0.05$), A4 (Initiative/leadership) by 6.95% ($p < 0.05$), A5 (Problem solving) by 6.27% ($p < 0.001$), and A7 (Responsibility) by 5.91% ($p < 0.05$). The findings highlight that the STARTIFY7 programme has a positive

impact on participants in relation to developing their attitudes towards entrepreneurial activity. Over 75% of respondents described the impact of STARTIFY7 as medium or high in terms of developing their attitude towards entrepreneurship.

While most of the participants reflected on how their attitudes developed in broad terms, such as building an entrepreneurial outlook or boosting confidence, for others there were signs of greater entrepreneurial intent associated with their attitude after the STARTIFY7 academy, although they did not create the business through the programme.

As an entrepreneurship education programme, a key outcome is developing the entrepreneurial orientation of participants; in this respect STARTIFY7 has been successful. In the post-academy reflections, it was interesting the extent to which the entrepreneurial orientation was linked to risk, although S6 (Managing risk) was not seen to improve to a statistically significant degree in the surveys. This represents an area for future development of STARTIFY7, as participation in entrepreneurship education could be expected to mediate risk taking to a statistically significant degree.

The Experiential Development of STARTIFY7

The STARTIFY7 programme was not intended to be experiential per se rather, as discussed above, the intention was to develop a blended learning experience that spanned the portfolio of pedagogic practice set out by Neck and Greene (2011). A key factor in developing the STARTIFY7 programme was to ensure that as an entrepreneurship education action (or intervention), it was grounded in pedagogic thinking and substantiated by the training needs analysis to justify, explain, and demonstrate its need. In this respect the project adhered to the call of Rideout and Gray (2013).

As the STARTIFY7 programme was developed and delivered, it was blended, but obviously more experiential in nature because of how it was framed. As Piercy (2013) notes, such experiential learning techniques have recently become more popular in business education and, in particular, entrepreneurship education. Elsewhere Tete et al. (2014) argue

that experiential learning is becoming the preferred teaching strategy in entrepreneurship, a view that again resonates with Neck and Greene (2011). While there is limited evidence published about the relative strength of the experiential approach, this chapter has offered new insights and highlights the relative strengths in entrepreneurship education.

The STARTIFY7 project has come to epitomise experiential learning as defined by Lewis and Williams (1994), based around a combination of learning from experience and learning by doing. The intention of the academy was to immerse participants in a way that saw them engage and reflect to develop new knowledge, new skills, and new attitudes about entrepreneurship. As an event, the academies provided a focal point for experiential learning, akin to that described by O'Malley and Ryan (2006), and the commitment to engage a network of external experts and entrepreneurs made the academies more experiential by the nature of their facilitative contributions.

As Mason and Arshed (2013, p. 461) note, 'it is argued that entrepreneurship education needs instead to be experiential. However, there is little discussion of what form this should take.' STARTIFY7 represents a very particular form of experiential approach that combines entrepreneurship as a process with entrepreneurship as a method. In this respect our commitment to colliding the 'process world' and the 'method world' incorporates a focus on both how to do entrepreneurship and how to be entrepreneurial. In this way we provide further evidence as to the value of the experiential approach through the case study of STARTIFY7 as a pan-European entrepreneurship education project. As we have shown, the positive impact on the participants in terms of their self-assessment has been found, overall, to be significant.

In addition to the participants' self-assessments and feedback, to further validate the worth of STARTIFY7 as an experiential approach to entrepreneurial learning, feedback was also sought from the external contributors to the academies. Overwhelmingly, the external contributors considered the STARTIFY7 programme to have provided a catalyst to the entrepreneurial development of the participants based on what they formally achieved and delivered at the academies. Reflections drawn from international contributors to the programme emphasised the achievements of participants in building quality business ideas over a short timeframe and delivering effective pitches.

Clearly there is scope, and a need, for further research in this area relating to the triangulation of findings, but the comments of the mentors and judges are indicative of the success not only of the participants but also of the wider programme. As stated in the midterm review of STARTIFY7 by Bibikas et al. (2017), the use of pre- and post-academy surveys while capturing the perspectives of participants is a snapshot. This chapter is based on data drawn from across the STARTIFY7 academies, self-evaluation of knowledge, skills, and attitudes by the participants themselves. Clearly there can be limitations associated with self-report methods in terms of reliability and validity. However, the self-assessments were one component that was triangulated with participant feedback and that received from the external judges and mentors.

Conclusions

This chapter has presented the STARTIFY7 project, which was designed from a pedagogically informed perspective as well as with the training needs analysis conducted by project partners to highlight the specific need. As a pan-European project focused on delivering entrepreneurial education to participants interested in starting-up ventures in sub-sectors of the ICT/digital economy in Europe, STARTIFY7 delivered seven thematic academies. The STARTIFY7 project is an example of an entrepreneurial education and training programme that has a strong experiential dimension.

As a project funded by the European Commission's flagship Horizon 2020, the programme was primarily concerned with supporting ICT/digital entrepreneurship, although it had a cross-cutting imperative to contribute to the Entrepreneurship 2020 Action Plan. In this way, STARTIFY7 delivered against not only the outputs and outcomes of the project but also the three high-priority areas of the Entrepreneurship 2020 Action Plan. As an academy-based programme, STARTIFY7 is an example of entrepreneurial education and training designed to support growth and business creation in the ICT/digital sector.

The nature and format of the academy structure focused on the process of establishing a business by demystifying the process to overcome perceived

administrative barriers to starting-up. This in itself is an example of supporting nascent entrepreneurs in crucial phases of business start-up. Finally, through the academies, STARTIFY7 has established itself as a dimension of the entrepreneurial ecosystem in Europe under the umbrella of 'Start-Up Europe'. In this way, and through the network of STARTIFY7 graduates, the project is contributing to the culture of entrepreneurship in Europe as well as nurturing the new generation of entrepreneurs.

References

Bibikas, D., Vorley, T., & Wapshott, R. (2017). Pan-European entrepreneurial summer academies with impact: The case of STARTIFY7. In P. Jones, G. Maas, & L. Pittaway (Eds.), *Entrepreneurship education: New perspectives on research, policy and practice* (pp. 261–281). Bingley: Emerald Publishing.

Bridge, S., & O'Neill, K. (2012). *Understanding enterprise: Entrepreneurship and small business*. Houndmills: Palgrave Macmillan.

De Clercq, D., & Honig, B. (2011). Entrepreneurship as an integrating mechanism for disadvantaged persons. *Entrepreneurship and Regional Development, 23*(5–6), 353–372.

European Commission. (2013a). *Entrepreneurship 2020 action plan*. Retrieved September 1, 2017, from http://ec.europa.eu/growth/smes/promoting-entrepreneurship/action-plan/

European Commission. (2013b). *Innovation and entrepreneurship support*. Retrieved September 1, 2017, from http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/ict-35-2014.html

European Commission. (2016). *The importance of the digital economy*. Retrieved June 28, 2016, from http://ec.europa.eu/growth/sectors/digital-economy/importance/index_en.htm

Fayolle, A., Verzat, C., & Wapshott, R. (2016). In quest of legitimacy: The theoretical and methodological foundations of entrepreneurship education research. *International Small Business Journal, 34*(7), 895–904.

Hytti, U., & Kuopusjärvi, P. (2004). *Three perspectives to evaluating entrepreneurship education: Evaluators, programme promoters and policy makers*. Paper presented at the 34th EISB Conference, Turku 2004.

Lewis, L. H., & Williams, C. J. (1994). Experiential learning: Past and present. *New Directions for Adult and Continuing Education, 62*, 5–16.

Mason, C., & Arshed, N. (2013). Teaching entrepreneurship to university students through experiential learning: A case study. *Industry and Higher Education, 27*(6), 449–463.

McIntyre, R. M., & Roche, M. (1999). *University education for entrepreneurs in the United States: A critical and retrospective analysis of trends in the 1990s*. Retrieved October 15, 2017, from https://www.scheller.gatech.edu/centers-initiatives/ciber/projects/workingpaper/1999/ 99_00-21.pdf

Neck, H. M., & Greene, P. G. (2011). Entrepreneurship education: Known worlds and new frontiers. *Journal of Small Business Management, 49*(1), 55–70.

Neck, H. M., Greene, P. G., & Brush, C. G. (2014). *Teaching entrepreneurship: A practice-based approach*. Cheltenham: Edward Elgar Publishing.

Neergaard, H., Gartner, W. B., Hytti, U., Diamanto, P., & Rae, D. (2017). Filling in the blanks: 'Black boxes' in enterprise/entrepreneurship education. Call for Papers. *International Journal of Entrepreneurial Behavior and Research*. Retrieved November 28, 2017, from http://emeraldgrouppublishing.com/products/journals/call_for_papers.htm?id=7399

O'Malley, L., & Ryan, A. (2006). Pedagogy and relationship marketing. *Journal of Marketing Education, 22*, 195–214.

Piercy, N. (2013). Evaluating experiential learning in the business context: Contributions to group – based and cross-functional working. *Innovations in Education and Teaching International, 50*(2), 202–213.

Reis, E. (2011). *The lean startup: How constant innovation creates radically successful businesses*. London: Penguin Books Ltd.

Rideout, E. C., & Gray, D. O. (2013). Does entrepreneurship education really work? A review and methodological critique of the empirical literature on the effects of university-based entrepreneurship education. *Journal of Small Business Management, 51*(3), 329–351.

Sheehan, M., & McNamara, A. (2015). *Business start-ups and youth self-employment: A policy literature review synthesis report* (STYLE Working Papers, WP7. 1). Brighton: University of Brighton.

Tete, M. F., Limongi, R., de Almeida, M. I. S., & Borges, C. (2014). Experiential learning as teaching strategy for entrepreneurship: Assessment of a Brazilian experience. *International Journal of Innovation and Learning, 16*(4), 428–447.

Torrance Wendy, E. F. (2013). *Entrepreneurial campuses: Action, impact, and lessons learned from the Kauffman campus initiative*. Kansas City: Ewing Marion Kauffman Foundation.

Welsh, D. H., Tullar, W. L., & Nemati, H. (2016). Entrepreneurship education: Process, method, or both? *Journal of Innovation and Knowledge, 1*(3), 125–132.

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