**Future entrepreneurs: exploring paradigms in the entrepreneurial learning experience**

Helen Lawton Smith and Muthu DeSilva

In C.Henry, B. Casqueria Coelho Gabriel, K. Sailer,e. Bernado-Mansilla and K. Lahikainen (eds) 2022 *Strategies for the Creation and Maintenance of Entrepreneurial Universities* IGI Global

**INTRODUCTION**

The aim of this chapter is to examine the implementation of a series of juxtaposed paradigms that underpin the entrepreneurial learning experience at Birkbeck, University of London, and share the results. Here the term “paradigms” refers to ways of thinking about such entrepreneurial learning experience. The paradigms presented are those that teach entrepreneurship from an academic perspective; hybrid teaching models that combine theory and hands-on practice; and as a purely practical learning process. These paradigms encompass analysis, reflection and opportunity recognition, as well as experiential learning. Linked to these approaches are the broader educational contexts in research-led teaching institutions such as Birkbeck, University of London. The core research question addressed by the chapter is: “What teaching and learning paradigms are most effective for students of entrepreneurship?”

The multi-dimensional educative process of teaching entrepreneurship and the associated learning outcomes includes both undergraduate and postgraduate students. The entrepreneurial university is an incubator of entrepreneurial intentions and students’ actions (Charles, 2012). Through its teaching and non-curricula activities, students engage with insights and practical support. Their motivations range from establishing a viable new firm or exploiting career possibilities within entrepreneurial small firms, to being entrepreneurial in their corporate, academic or public workplaces, thus increasing their employability.

Students’ interest in entrepreneurship programmes is driven by the desire to develop appropriate entrepreneurial skills, gain insights into the required entrepreneurial mindset (Henry, 2013) and become part of an enabling network for their career aspirations (Savva et al., 2019). While these ambitions might have been expected to change during the Covid-19 pandemic, student entrepreneurship has not slowed. Rather, students have used the extra time available to them to work on their ideas (Creator Fund, 2020).

This chapter focuses on a UK entrepreneurship education experience within a special educational context. Birkbeck is a research-led University. It has two distinctive features: it is London’s evening university (most classes are 6-9pm); and the majority of the students are part time. These features affect the ways in which entrepreneurship is taught. Birkbeck makes no claim to be an-all-encompassing entrepreneurial university as it does not ‘do’ academic enterprise (Lawton Smith et al., 2020).

Following this introduction, the chapter has three further sections. In the first, literature relating to entrepreneurial learning experiences and how these experiences are positioned within entrepreneurial ecosystems is reviewed. This presentation is sensitive to diversity issues (gender, ethnicity). In the second, evidence on what learning Birkbeck offers to potential and actual student entrepreneurs through its programmes is presented: how to start, how to grow and how to learn from failure. All of this is important on becoming an entrepreneurial university. Examples of successful student entrepreneurs and other types of entrepreneurs who have been through the Birkbeck experience are also included. In the final section, the authors reflect on the specific facets of the entrepreneurial experience that are developed at Birkbeck.

**UNDERSTANDING ENTREPRENEURIAL LEARNING EXPERIENCES**

The literature on the student entrepreneurial experience is a subset of a wider body of research on entrepreneurship (Shane and Venkatraman, 2000) within the context of an increasing entrepreneurial university paradigm (see for example Etzkowitz et al., 2000). These scholarly contributions date back to at least the 1980s. Largely overlooked, however, are differences in behaviour arising from gender, ethnicity and disability. The focus on student entrepreneurs more recently has been analysed from more systemic perspectives, for example entrepreneurial ecosystems originating from around 2015.

*Entrepreneurship education, the entrepreneurial university and entrepreneurial learning.*

Charles (2012) suggests that an entrepreneurial university (Etzkowitz, 1983, 2003; Clark, 1998) is one that stimulates students to be entrepreneurial, builds entrepreneurial training into the curriculum, and provides dedicated support for student (and graduate) enterprise. While entrepreneurship is often defined as a process of starting a new venture, recent literature has also applied the concept to explain entrepreneurial behaviour in other contexts such as ‘intrapreneurial’ activities involved in becoming entrepreneurial in corporate, academic and public organisations. Such wide application is facilitated by Shane and Venkatraman (2000), who see entrepreneurship as a process of spotting opportunities and exploiting these by matching those opportunities with resources in order to generate value.

Of course it is possible for this spotting and exploitation of opportunities to occur in contexts other than those related to starting a new venture. Such a broader definition is more applicable in the context of higher education since a class may comprise students with a diverse range of desires, including having the expectation of learning how to become entrepreneurial in different contexts. Within this broad concept is the sub-theme of whether entrepreneurial learning is gaining knowledge which can be acquired, or whether it is something which has to be personally experienced. For Politis (2005), entrepreneurial learning is an experiential process. Her framework identifies three main components in the process of entrepreneurial learning: entrepreneurs’ career experience; the transformation process; and entrepreneurial knowledge in terms of effectiveness in recognizing and acting on entrepreneurial opportunities and coping with the liabilities of newness (Stinchcombe, 1965).

Different concepts are associated with the entrepreneurial learning process at different stages in students’ experience, including whether they are experiential or not. These include entrepreneurial skills and entrepreneurial competence; they are not necessarily linear. There are those associated with how to start (including the pre-entrepreneurial experience); how to grow; and how to fail. It is also a reflective process: students reflect on the relevance of an academic programme, on their engagement in teaching-led practical experience, as well as on their extra-curricular activities.

Consistent with Politis (2005), Savva et al. (2019) surveyed students’ experiences of entrepreneurship education in the UK and the US, and found that students who want to get (or have already become) involved with a business develop appropriate skills, get insight into the required mindset and become part of an enabling network for their career aspirations. The primary requirement is for support to develop their business ideas and business execution skills. However, Savva et al. (2019) argue that many individuals are missing out on the opportunity to develop the transferable entrepreneurial skills and mindset that is so advantageous in work, due to the goal of needing to start a business.

It is important to recognise that there are gender differences in entrepreneurial attitudes and intentions between men and women students. These can be attributed to social and behavioural orientation (Micozzi and Micozzi 2020). Moreover, the effects of ethnicity or disability on student entrepreneurial behaviour are now being recognised (see for example Husssain et al., 2007 on ethnic minority students; Daniel et al., 2019 and Lee and Eesley, 2018 on ethnicity per se; Muñoz et al., 2020 and Kruger and David, 2020 on students with disabilities). There is also evidence that universities are increasingly sensitive to diversity issues relating to their students.

*How effective is entrepreneurship education?*

Savva et al. (2019) raised the question of whether Higher Education Institutes (HEIs) can “make” entrepreneurs. They surveyed 35 business owners, consultants, students and academics involved in entrepreneurship in the UK and in North America. The responses revealed a consensus that the skills essential for entrepreneurs fell into seven broad categories - communication, interpersonal, financial, leadership/ management, selling, problem solving and area-specific knowledge. Those interviewed generally agreed that it is possible to teach and develop these skills in a traditional academic environment. The report also distinguished between management and leadership.

On this point, Savva et al. (2019) suggest that management is easier to teach in an academic environment because its principles, processes and attributes can be systematically replicated, but that leadership is more difficult to teach because it is a skill that often needs to be developed over years. They conclude that, regardless, a successful entrepreneur will need both management and leadership skills in order to succeed in a real business environment.

A review of evidence in the UK’s Department of Business Innovation and Skills (BIS) report (2015) concluded that it is possible to identify a set of skills that can be characterised as ‘entrepreneurship skills’ which are distinct from – although closely related to – accepted definitions of management and leadership skills. The report argues that entrepreneurship skills are associated with competence in the process of opportunity identification (and/or creation), the ability to capitalise on identified opportunities and a range of skills associated with developing and implementing business plans to enable such opportunities to be realised. The report also finds that there is evidence that some entrepreneurship skills can be taught and/or learned. However, entrepreneurs tend to learn less effectively from the conventional didactic approaches typical of much of the educational sector. Instead the most effective approaches to developing entrepreneurship skills involve experiential learning based around task-oriented development focused on real business problems. With regard to diversity, the BIS report finds that there is some suggestion of variation in the type and/or level of entrepreneurship skill by gender, ethnic groups, nationalities and/or location. However, overall entrepreneurship skills appear to be related only loosely to factors such as the demographic or educational background of the entrepreneur.

Breznitz and Zhang (2021) examined the impact of different kinds of academic and professional entrepreneurship education on entrepreneurship. Their results indicate that, in comparison with no entrepreneurship education at all, entrepreneurship education courses have a positive impact on entrepreneurship in general and on student entrepreneurship in particular. In addition, a combination of entrepreneurship education inputs from different organizations, such as government agencies, incubators/accelerators and universities, is responsible for the establishment of high-technology firms.

With regard to graduate degrees, Breznitz and Zhang (2021) find that studying computer science is relevant for general entrepreneurship, while management fields and a graduate degree directly contribute to student entrepreneurship. Impact also varies by business area; for example there is a question around whether universities’ entrepreneurship courses are less important for the foundation of high-technology firms. Their analysis also shows that entrepreneurship education courses from incubators/accelerators have a stronger impact than university entrepreneurship courses on the establishment of firms in general and on students’ firms in particular. They conclude that there are important differences between courses offered by universities and incubators/accelerators. In particular, incubators and accelerators focus on practical information, providing information which is more relevant to firm establishment and management (Smilor, 1987). There are also ecosystem effects (see below) since locating in an incubator/accelerator helps firms to build their networks, for example with sources of funding such as business angels, venture capital funding and government funding (Breznitz et al., 2018; McAdam and McAdam, 2008).

*Learning to start*

A key element in the entrepreneurship process is opportunity recognition and the development of an entrepreneurial mindset. For Politis (2005), the entrepreneurial learning process involves the acquisition of entrepreneurial knowledge which consists of (a) increased effectiveness in opportunity recognition and (b) increased effectiveness in coping with the liabilities of newness. Entrepreneurs also share a common set of behavioural attributes. Of these, passion and drive are the most important (Savva et al., 2019).

Breznitz and Zhang (2021), however, point out that entrepreneurial intentions are not the same as firm formation intentions. People who intend to become entrepreneurs will not necessarily establish firms. Having entrepreneurial intentions is explained by the desire to establish or to grow a new business enterprise (Kariv et al., 2019). Therefore, entrepreneurship education at university can also play an important role in helping some students decide that entrepreneurship is not for them.

Savva et al. (2019) found that the major perceived barrier preventing students from entering the entrepreneurial space was a lack of business awareness. Other factors covered a broad spectrum, including lack of funding, risk aversion (a trait not usually associated with entrepreneurs), and lack of experience. Those interviewed suggested that HEIs could help to overcome these barriers by providing networking opportunities, mentorship and incubator spaces. The key advantage of entrepreneurship education is that it is allows aspiring entrepreneurs to face many real-world situations in a safe-to-fail environment.

Savva et al. (2019) report that HEIs are increasingly playing a supportive role in the student entrepreneurship experience while at the same time not making demands on students such as ownership of intellectual property (IP) or equity in the business. For example, MIT offers free of charge to its entrepreneurial students, use of its resources and spaces. The belief is that students are more likely to pursue business ideas if they have full ownership and if the resulting value generation for the HEI is intangible. The HEI also becomes a safe space for a fledgling entrepreneur to fail.

Entrepreneurship programmes, for example at MIT, are tailored to the level of interest that the student has in entrepreneurship. A beginner course may be offered to explain the basic concepts of business and entrepreneurship, with follow-up courses introducing more practical elements to the more committed students. For the most committed students, there is the option to participate in an accelerator-like experience in the summer.

In addition, universities in North America often offer or employ some form of technology transfer programme or consultants (e.g. CUNY I-corps; Toronto MaRS Innovation) to accelerate student and faculty innovations. Other supports take the form of entrepreneurial spaces that provide business advice (for example Harvard Innovation Labs, or the MIT Martin Truss Centre). At a practical level, having access to mentors provides the opportunity to share and get feedback on ideas in order to understand what is realistic, identify potential problems and learn from other people’s mistakes.

*Learning to grow*

A basic problem for all new entrepreneurs including student entrepreneurs is the “liabilitity of newness” (Stinchombe, 1965). Politis (2005) asks whether it is possible that entrepreneurial education will help address the issue of having a lack of learning experience. Entrepreneurs with prior experience are likely to be more successful in starting subsequent ventures.

Savva et al. (2019) ask what elements of entrepreneurship education are not being implemented that perhaps should be? The answer seems to be that support for longer-term execution of business ideas after the initial phase and thus at the point where it is most needed, is often missing. They report that it is a truism that it is not business ideas that fail, but business execution. While workshops and programmes talk about this phase, it is often in the early stages of business idea development where it is more difficult to apply. They. conclude that there is potential to support more established businesses and entrepreneurs with their longer-term development and not just with idea generation.

*Learning from failure*

Evidence from the UK[[1]](#footnote-1) and the US[[2]](#footnote-2) suggests that the most common outcome for firms is that they will fail. Where the evidence is not conclusive is whether student firms fail less often or just later. What tends not to be taught in entrepreneurship courses is an understanding of the failure process. This includes why businesses fail, how people respond to business failure – behaviour and practices (Klimas et al., 2020), as well as more positive aspects of business closure. Thus, entrepreneurs should gain high level learning from failure (Cope, 2011). The learning not only covers themselves and why businesses fail, but also networks, relationships and the pressure points of business management. There is also the issue of whether timely intervention can help avoid failure (Start-up Canada, 2019).

Entrepreneurial learning experiences necessarily extend beyond the classroom and the university. Networks and relationships external to the university are central to the entrepreneurial ecosystems as part of the entrepreneurial university concept. This is discussed in the next section.

*Entrepreneurial ecosystems*

While the focus of this chapter so far has been on the processes internal to the university, other processes are at work – learning from the media, from friends and acquaintances and mentors, as well as from professional organisations. In the classroom, students are encouraged to learn by engaging in an interactive dialogue. This provides opportunities for individual and collective learning experiences (Mason and Arshed, 2013). Students learn through social capital in which they gain shared understanding of the entrepreneurial process with others – other students, entrepreneurs and entrepreneurial professionals - which would help them to gain access to finance (formally or by bootstrapping). In this regard, Bergmann et al. (2016) studied business and economics students in 41 European universities and found that individual and contextual determinants, including regional ones, also influence students' propensity to start a business.

Breznitz and Zhang (2021, 910) cite Wright et al. (2017) who state that, “An entrepreneurial ecosystem in a university for students includes entrepreneurship courses, incubators, accelerators, grants, and business plan competitions”. Miller and Acs (2017) provide a specific description of such an ecosystem, where the internal part of the system includes students, faculty, mentors, facilities, courses and funding. The outside environment is just as important, contributing government funding, private funding, professional services and accelerators.

Since different students might be in the process of developing into different types of entrepreneurs such as – start-up-, corporate-, academic-, public-, and civil-, entrepreneurs - having the opportunity to work together within a classroom setting (physical or virtual) is likely to offer them opportunities to engage in entrepreneurial co-creation (De Silva and Wright, 2019).

Breznitz and Yang (2021) find that the results of their study contribute to the entrepreneurship ecosystem literature. They cite Stam (2015) who holds that the entrepreneurship ecosystem approach specifically addresses high-growth start-ups, as they are an important source of employment, innovation and productivity growth. In addition, Spigel (2017) identifies the importance of social networks that allow for the flow of knowledge and skills, and hence connect entrepreneurs and other interested parties. He finds that in the case of high-tech start-ups, a combination of knowledge from other organizations (mostly regional government agencies and private organizations), incubators/ accelerators, together with university courses; is important in the establishment of high-technology firms. Collectively, this combination indicates the importance of an entrepreneurship ecosystem for students’ entrepreneurial learning.

**INTERPRETING THE ENTREPRENEURIAL LEARNING EXPERIENCE AT BIRKBECK**

*Background: the Birkbeck Context*

Context is important. Birkbeck is London’s ‘evening university’ and has a very high percentage of students in employment. It has a diverse student body, by work experience, ethnicity, race, gender and background. Thus the student ‘entrepreneurial mindset’ is influenced by personal and institutional characteristics, which are in turn shaped by how research-led teaching and broader applied-research communication reflect key academics’ intellectual curiosity and missions (their own teaching paradigms), as well as the College’s response to a clearly identified demand for entrepreneurship teaching.

To examine the entrepreneurial learning experience at Birkbeck we deconstructed the various components into aims of delivery, curricular modules, skilled based opportunities and research led collaboration based activities. This is shown in Figure 1. We also reflected on the nature of the various elements and their evolution, as well as drawing on student and graduate feedback.

*The evolution of entrepreneurial education at Birkbeck*

Evolution in a successful and expanding area will inevitably involve shifts in emphasis and activity over time. Birkbeck’s entrepreneurship education activities (Figure 1) began with a single Masters module *Entrepreneurship and Innovation* (E&I) in 2006 developed when Lawton Smith joined the faculty. As it became clear that the student demand at undergraduate level was growing, an undergraduate module, *Entrepreneurship and Small Business* (Ent & SB) was introduced by the same member of staff in 2010.

In 2012, with growing demand for more support activities, at the suggestion of those involved in the teaching and students, an Entrepreneur in Residence (EIR) was appointed in the School of Business, Economics and Informatics (BEI) who assisted in the establishment of the student-led college-wide Birkbeck Enterprise Hub 2012-2013 and who provided mentoring and networking opportunities for staff and students thuis helping to kick start a wider appreciation and involvement in entrepreneuirial activities. . Strong support for the Hub came from inter-alia a colleague in the School of Science, Renos Savva, himself an entrepreneur. Dr Savva went on to establish the MSc Biobusiness degree in 2014, which includes a hands on experiential entrepreneurship module - *The Entrepreneurship Process* (EP) - alongside more traditional academic modules. This is a joint programme between the Department of Management and the School of Science and can be viewed as being itself an early result of the entrepreneurial university in action.

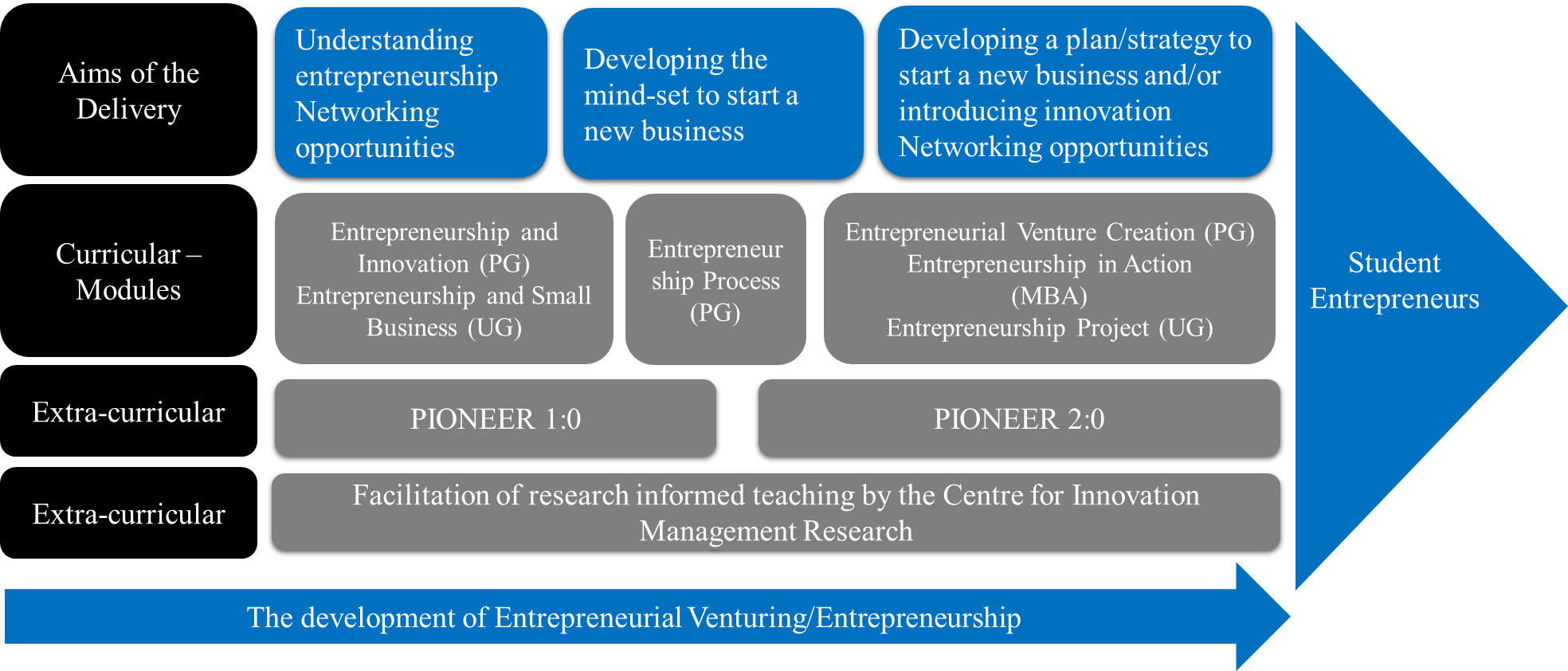
The Hub was discontinued as was the EIR to give a transitory weaker and less student led approach that was more localised thus diminishing the overall contribution to the college. This could itself be studied as an example of temporary entrepreneurial failure within an HEI. However, with the subsequent development and support arrangements and help from outside, and as the college strives to become more entrepreneurial overall, this temporary aberration has been rectified in a more resilient, sustainable way.

The MSc BioBusiness programme is built around five modules from the Department of Management, together with three from the School of Science including one on *Entrepreneurship in the Bio-business* Industry. This is predicated on it being organised on experiential learning, equipping students with the competence to start a business and influencing their propensity so to do (QAA, 2012; Mason and Arshed, 2013; Artess et al., 2017). Savva recognised that the speaker programme and lessons learned from the Enterprise Hub added an experiential dimension to the programme. Accordingly, all of the Biobusiness modules have guest speakers.

The appointment of Muthu De Silva, first as lecturer, now Reader, in the Department of Management has led to the expansion of the entrepreneurship teaching programme, first with the Masters module, *Entrepreneurial Venture Creation* (EVC) (experiential learning) and a new undergraduate module, *The Business Project* (TBP). She has introduced research-led and practice-oriented new topics to the *Entrepreneurship and Small Business* undergraduate module, especially by enhancing its application to diverse forms of entrepreneurship. In addition, a joint MBA programme between Birkbeck and Central St Martins (an Arts college) has the *Entrepreneurship in Action* module.

*The entrepreneurial learning experience*

Birkbeck now has a multidimensional approach to the development of student entrepreneurs, shown in Figure 1. This provides the rationale for how entrepreneurship is taught in the classroom, how entrepreneurial support is offered at college level outside the classroom, and how the networking environment is provided by the Centre for Innovation Management Research (CIMR). These modules have been delivered online in 2020-2021.



**Figure 1. Entrepreneurship Education at Birkbeck**

Figure 1 shows the paradigms or ways of thinking about the entrepreneurial learning experience from those that teach it from an academic perspective: from hybrid teaching models that combine theory and hands-on practice; to viewing it as a purely practical learning process. Paradigms develop through acquiring an entrepreneurial mindset and practical skills.

The top line shows the aims of the delivery starting with helping students understand what entrepreneurship is and how entrepreneurial ecosystems function in a university. This leads to the third box which is when the practical experience comes in, for example, by developing a business plan. The second line shows the modules that are associated with each stage. Common to all the curricular modules is the guest speaker programme and use of external engagement.

The guest speaker programme began with *Entrepreneurship and Innovation* – the first module at Birkbeck dedicated to entrepreneurship. It has been implemented as an experiential learning element in subsequent UG and PG modules. Students hear about the experiences of the entrepreneur, or the financier or the policy-maker and thereby gain understanding. They also have the chance to ask questions of the speakers to further inform their thinking. The speakers are always willing to engage with the students after the lecture. In several cases entrepreneur speakers have become mentors in the hands-on teaching modules. As a result, students get the opportunity to engage in research-led and practitioner-oriented learning, which is considered extremely important to enrich learning experience. Table 1 summarises the academic content of the modules.

Insert Table 1 here

Returning to the theme of what students learn about the different stages of the entrepreneurial process, Table 2 highlights which modules feature learning to start, learning to grow and entrepreneurial ecosystems.

**Table 2. Targets of taught entrepreneurship modules at Birkbeck**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Ent & SB** | **EP** | **E**  **&**  **I** | **EVC** | **TBP** |
| Learning to start | x | x | x | *x* | *x* |
| Learning to grow | x | x | x | x |  |
| Learning to fail | x | x | x |  |  |
| Entrepreneurial ecosystems | x | x | x | x |  |

Table 2 shows that the most common focus of the taught programmes is on the paradigm relating to the learning process concerning the experience of preparing to start a business and its early stages. This includes spotting opportunities (Shane and Venkatraman, 2000) as well as putting them into practice. EVC, the Entrepreneurship Process and the Entrepreneurship Project all involve team working thus providing the opportunity for co-creation (De Silva and Wright, 2019). These modules include mentors who work with the teams.

The majority of modules also deal with growth, while three modules address the paradigm of thinking about what leads to failure, failure itself and what happens next, including the impact that failure has on the entrepreneur and others directly or indirectly involved (both positive as well as negative effects (see Klimas et al., 2020; Start-up, Canada 2019)). In each case, guest speakers and mentors talk about their experiences of failure and what can be learned from them. In 2021, for *E&I,* students were required to listen to the Startup Survival podcasts[[3]](#footnote-3) before the lecture and engage in a live conversation with their creator, Peter Harrington. They then discussed business failure in breakout groups. One of the questions discussed was whether policy intervention could help avoid failure. The combination of the different elements gives a rounded learning perspective on the topic.

Four of the five modules educate students about entrepreneurial ecosystems. The entrepreneurial learning experience includes lectures on networking, live guest speaker talks followed by question and answer sessions, and then in some cases follow-up contact with the guest speaker. These activities develop understanding both of internal Birkbeck entrepreneurial ecosystems and of possibilities for external engagement. Both the Pioneer programmes and the CIMR (see below) are part of the linking of students to broader entrepreneurial ecosystems through experiential learning as well as abstract understanding of how they function.

Returning to Figure 1, the third and fourth lines show two kinds of extra-curricular activity. The first is the Pioneer programme introduced in 2019, funded by Santander, which was added to the Enterprise Pathways programme introduced to address deficiencies resulting from the demise of the EIR and Enterprise Hub. The second is the Centre for Innovation Management Research (CIMR).

*Non-curricula Enterprise Support*

**Enterprise pathways and the Pioneer programne[[4]](#footnote-4)**

In 2020 a new £150,000 agreement to fund programmes to support student entrepreneurs at Birkbeck was signed. Santander Universities, who have supported the College since 2013, generously funded a number of projects including the current [Pioneer Programme](about:blank), launched in 2019 initially as a single offering but rapidly expanded in response to demand, a dedicated, extra-curricular course for any Birkbeck student interested in developing skills in enterprise and entrepreneurship. The programme is open to students who are developing a business idea, growing an existing business, enhancing entrepreneurial knowledge and skills, and networking with likeminded students and entrepreneurs. To date, the Pioneer Programme has benefitted over 200 students who have undertaken a range of practical training opportunities and attended talks by successful entrepreneurs from a variety of industries[[5]](#footnote-5).

There are currently two distinct Pioneer options depending on the level of interest and involvement of the student. To quote the promotional literature:

“Pioneer 1

* This programme is designed to help you develop and practice the skills you need to succeed in enterprise - whether you have a business idea, are freelancing or are at the early stages of starting your business.
* We are delighted to welcome a range of entrepreneurs and business experts for each of these sessions to speak on their subjects of expertise, share advice, and answer your questions.
* You will learn new skills, network with like-minded Pioneer participants and industry experts, and take control of your enterprise journey.
* Pioneer 1.0 is a virtual programme with all sessions taking place live online. “

Pioneer 2

* Throughout the programme, you will receive coaching, mentorship and training from expert speakers on developing a practical and strategic plan for your business.
* The programme will also provide you with a cohort of peers at a similar stage of development as that of your company, to help facilitate peer learning and support.
* You will learn and enhance your skills in financial management, sales, funding, marketing, leadership, strategic planning and much more.
* Pioneer 2.0 will be a live virtual programme with all sessions taking place online.”

In addition, START-UP TUESDAY is a bi-weekly deep dive and Q&A into a business topic or story of an entrepreneur.

As part of an evaluation process, Savva et al. (2019) surveyed 210 students from the Pioneer 1 entrepreneurship programme to determine their motivation for participating. Of the students attending Pioneer 1, 60% were interested in owning their own business, while 28% and 21% wanted to develop an entrepreneurial skill set and business knowledge base respectively. 8% of those attending Pioneer 1 did so in order to network. These results are consistent with a smaller focus group of Pioneer 1 students which revealed that students were primarily looking for hands-on support to help develop their business ideas and entrepreneurial skill sets.

The results of this evaluation suggest that entrepreneurship courses should focus on providing a hands-on experience that could be supplemented with courses that teach skills such as finance and communication. It was also suggested that it might be possible to develop synergies between curricular and extra-curricular components based upon the fact that at Birkbeck, access to certificated modular content is accessible to other programmes upon negotiation of a suitable fee.

Drawing on the North American experience, the researchers recommended that Workshops and Training Entrepreneurship programmes (including workshops and training) should be tailored to students’ level of interest in entrepreneurship. Starting with a beginner course to explain the basic concepts of business and entrepreneurship, there should be a follow up course that introduces more practical elements to the more committed students. Students then have the option to participate in an accelerator-like experience. The subsequent introduction of Pioneer 2 has addressed some of these issues.

**Birkbeck Centre for Innovation Management Research (CIMR)**

The Birkbeck Centre for Innovation Management Research (CIMR) is a college-wide research Centre of [Birkbeck, University of London](about:blank). Launched in 2008, it undertakes international research focusing on multi-disciplinary academic, industrial and commercial themes relating to the management of innovation. It is a hub for enabling collaborations; teaching and sharing of research, ideas and practice to create impact and facilitate more effective management; commercialisation of innovation; and the development of effective policy.

Its members comprise academics and visiting fellows who include entrepreneurs, policy-makers, student alumni and PhD students. Masters students are invited to its regular events which feature all kinds of members. In some instances students have helped to shape the programme by asking questions that need to be debated (bbk.ac.uk/cimr). The contribution of CIMR to student enterprise has been twofold. The first was through the EIR and the student-led Birkbeck Enterprise Hub supported by the BEI School. The EIR was appointed in 2012 to work one day a week, was a college-wide with close links with the Students’ Union. The EIR and the Enterprise Hub integrated teaching and practice. Lawton Smith and Atter (2014) reported that “The role of the EIR was to foster and support a culture of entrepreneurship across Birkbeck, resulting in high levels of graduate employability, student/alumni engagement and faculty involvement”. It operated:

* Workshops and strategic events, often with external speakers,
* Coaching seminars, and
* Individual mentoring for student entrepreneurs working on more advanced products.

One of the key achievements of the Hub and subsequent activity has been to attract a high proportion of women to activities. For example, more than half the participants in the coaching seminars are women. It was based in the Department of Management with staff from around the college including the School of Science acting as mentors. The EIR was able to ” facilitate necessary soft-skills development, while promoting access to team talent, acting as a network enabler and acting in the interests of student entrepreneurs to progress nascent ideas” (Savva et al., 2019, 22). The EIR also arranged specific events for under-represented groups (e.g. gender, ethnicity, life choice). An EIR could also add value to taught programmes directly by contributing to appearances via facilitation, or having leverage to invite special guests. An EIR would mentor students to maintain the professional contacts they might make themselves. Most of these activities are now mainstreamed though the Pioneer programme.

The Hub also had an Entrepreneurship Board – comprised of students, faculty staff and outside entrepreneurs - with executive chairing by the EIR and regular meetings. Savva et al. (2019, 22) “that it is all the more relevant in the modern HEI model”. Other London colleges such as the London School of Economics and Kings College now have EIRs.

By no longer having an EIR, students were missing out on the immediacy of response to their requirement for ‘hands-on’ experiential support. They also missed out on their role of providing “liaison to the entrepreneurial ecosystem” (see Savva et al. 2019). Accordingly, once the problem was identified, the Hub’s relevant functionality was replaced by a series of measures. These were subsequently consolidated into the Santander Pioneer Programme and the Enterprise Pathways (above).

The CIMR also continues to expand its membership and includes former student entrepreneurs, industry and government based workers in the area, as well as academic entrepreneurs. This helps to provide mentoring replacing the initial gap. The gender balance here is good and that helps with encouraging female entrepreneurs.

The second major form of experiential learning, which often includes entrepreneurial learning, is through the engagement of students, usually Masters students, in CIMR events. Very often practitioners (entrepreneurs, consultants and policy makers) are speakers at workshops in the online CIMR debates in Public Policy and in the alumni events. Recent examples include: the History and Future of Entrepreneurship in Quantum Technology (February 2021) and **“Gaming and Gender: Video gaming as a catalyst for learning innovation in Gen Z women.” Students** also have access to CIMR blogs and news items.

Through this process, the CIMR provides experiential learning indirectly by gaining insights into the required entrepreneurial mindset (Henry, 2013), and directly by becoming part of an enabling network for their career aspirations (Savva et al., 2019). This provides a better understanding of how entrepreneurial ecosystems function in different contexts, and helps students become part of them.

*Discussion: entrepreneurial outcomes*

The Birkbeck entrepreneurial learning experience (Politis, 2005) covers classroom learning combined with direct contact with practitioners, hybrid teaching models and hands-on practice. This covers a broad spectrum of paradigms. Outcomes include what the students have learned through the lectures and then applied in assessments. However, other outcomes are difficult to assess. Some are short-term and others longer term.

One way of interpreting and assessing experiential learning experiences (Mason and Arshed, 2013) and entrepreneurial ecosystems (Stam, 2015) is from student feedback. For the newer modules as well as those that have been running for longer, the feedback has been constant: that guest speakers add value to the academic content.

The selected comments below are from the 2020 cohort of Undergraduate students on the Entrepreneurship and Small Business programme and from Masters students on the *E&I* *and EVC* programmes.

Entrepreneurship and Small Business

* The guest speakers provided variety and made the lectures interesting, bringing in people with their experiences and up to date knowledge and expertise.
* Listening to the entrepreneurs’ practical experiences and comparing to theory, having guest speakers gave the module more depth.

Entrepreneurship and Innovation

The guest speaker programme was, for many students, one of the highlights of the module. A typical comment was

* Guest lecturers give real and valuable insight into the current entrepreneurial climate.

Entrepreneurial Venture Creation

The hybrid model of this module is reflected in the feedback on the entrepreneurial learning process.

* The whole concept towards developing a good business plan for an entrepreneurial person was very useful. The guidance towards developing a good market research plan to enable presenting a sound business plan was also very useful. We have had a very wonderful learning experience in this module, students were encouraged and supported to interact with each other which was useful as we were able to share our ideas and gain even more from inputs from our peers.
* Having guest speakers was also useful as we were able to learn from experts who have been there and done it all....!
* Guest speakers helped a lot with the shape of the final project and to understand the topics taught.
* I loved the fact that we had different entrepreneurs joining our sessions and sharing their experiences.

On outcomes of hybrid and practice-based teaching and activity, it is not possible to quantify the number of students at Birkbeck who have gone on to found their own businesses. Therefore, it is not possible to categorize the college as an incubator of entrepreneurial intentions and actions (Charles, 2012). Indeed, a number of Birkbeck students were already entrepreneurs before they joined the College. However, the student feedback appears to demonstrate a link between the entrepreneurial learning experience and the entrepreneurial event. Two examples illustrate the interdependence of the teaching and extracurricular programmes: These are *Blind Cupid* and *The Joy Club.*

The founder of *Blind Cupid*, a Masters student, took two entrepreneurship modules. These were the theoretically-led entrepreneurship education E&I and the practically- led business plan development, EVC. The latter provided mentoring by a CIMR Fellow who subsequently became a formal advisor to the firm. The student also participated in the extra-curricular programme (PIONEER) and in CIMR. CIMR also provided platforms for publicity about both the founder (see Box 1) and his mentor, Stephen Sykes[[6]](#footnote-6).  In addition, in 2020 one of the PhD option students taking the MSc BioBusiness Modules started her own company, under the mentorship of one of the key session guests, Hannah Thomson (Box 2).

**Box 1: Blind Cupid**

Alexander Flint Mitchell, one of our Outstanding Students in the [MSc Business Innovation with Entrepreneurship](about:blank) programme, who developed his business plan during [Entrepreneurial Venture Creation Module](about:blank) has already raised OVER 100K CAPITAL for his business, and was the [Pioneer](about:blank) Awards Winner 2020, discusses the Life Changing Year of building his AI and conceptual philosophy-driven start-up, Blind Cupid”

When Alexander Flint Mitchell enrolled onto Birkbeck’s MSc Business Innovation last September, it was with a view to changing career direction and developing the business idea that had been on his mind for the last five years.

Handing in his notice just one month later, you could say things had moved a little faster than expected. “Looking back on it, that was probably a bit naïve,” Alexander admits, “but if you want to achieve something big, you’ve sometimes got to take a leap into the unknown.”

The motivation for this leap of faith? A grand idea for an app called Blind Cupid.

Blind Cupid is a matchmaking app with a difference, using never-before-used science and advanced artificial intelligence to match people based on their fundamental tenets and values as well as communication style. Unlike all competing products, Blind Cupid also gives users the chance to see bios and compatibility scores before they reveal pictures to potential matches. The rationale is to save the user time, money and effort due to bad dating decisions made solely about someone’s appearance.

Source: An interview with award-winning entrepreneur and MSc Business Innovation student Alexander Flint Mitchell – Centre for Innovation Management Research - bbk.ac.uk

**Box 2: The Joy Club**

Hannah Thomson - founder of The Joy Club, and a 2016-18 alumna of the MSc Bio-business with Distinction. Hannah is now a guest contributor on the programme - initially during her second year and the following year on the module*Future Health Technologies*, when she was working in advanced FemTech, then again from 2019 until the present time as a presenting guest and facilitator on the workshop module *The Entrepreneurship Process*.  
Hannah is an excellent teacher/trainer and a super entrepreneur - as well as award winning international yachtswoman.  
Hannah is mentoring a PhD option-taker student of the module last year who used it to launch a new enterprise idea. That student is doing her PhD at UCL in the MRC doctoral training programme.

Source: [Interview with Hannah Thomson, Founder & CEO at The Joy Club: Helping Everyone Afford A More Active Retirement - TechRound](about:blank)

**CONCLUSION**

This chapter set out to examine the implementation of juxtaposed paradigms in the development of entrepreneurial learning and practical skills in the student body at Birkbeck, University of London. These paradigms arise both through teaching and through extracurricular activity. They involve ways of thinking about this learning experience from analysis and reflection, to opportunity recognition and experiential learning. The core research question addressed in the chapter focused on: “What teaching and learning paradigms are most effective for students of entrepreneurship?”

The activities at Birkbeck combine research-led and practitioner-oriented approaches. This combination is achieved by innovatively combining theory with practice. Such combinations are possible through the involvement of guest speakers and a growing body of mentors, the use of case studies, the use of blended learning approaches, and the promise of opportunities for students to engage in research centre seminars and extracurricular entrepreneurial learning activities. Entrepreneurial activities are also facilitated by the external engagement of academics, through which they generate impact from their research. Often academics capitalise on such engagements to enrich teaching. Birkbeck’s academics are thus both academically rigorous and practically well informed; this has enriched the student experience. All of this serves to ratchet up the overall entrepreneurial nature of the college.

Another way of thinking about the learning experience is as co-creation of knowledge. Often students are given a platform on which to co-create knowledge though close engagement with their peers, academics, guest speakers, mentors and other networks introduced through these and through research centre and extracurricular activities. Such formation of knowledge is extremely important. Students are able to increase both their employability and the application of their learning in professional engagements. These are short-term outcomes, but there are also longer term outcomes.

In the longer term, students who graduate from Birkbeck’s programmes interact with academics and students as guest speakers, mentors and gate-keepers to their corporate and policy organisations. Alumni also act as role models to our students.

In sum, Birkbeck offers an evolving broad approach to entrepreneurship. The definition of entrepreneurship includes entrepreneurship in different contexts ranging from start-up-, corporate-, academic-, public-, and civil-. Entrepreneurship has increased the applicability of Birkbeck’s teaching. Therefore, a diverse range of students are able to fulfil their objectives to become entrepreneurial in their own context. This is also supported by research and applied research expertise in innovation (e.g. CIMR) that has resulted in enriching student experience and employability.

The offering will continue to evolve but it is clear that, for the moment at least, entrepreneurship is viewed as an important topic by students and other stakeholders in education such as industry and government. These other stakeholder express the desire to see more entrepreneurial activity in general including more entrepreneurial universities.

It is thus important that universities should learn from their own students and alumni and their learning experiences, as well as from the research being undertaken on entrepreneurship success. The paradigms of learning developed through the Birkbeck evolution and elsewhere are increasingly seen as suitable for an entrepreneurial way of thinking, and have proven to be resilient to recidivism. The more staff that are involved in delivery and related activities within these paradigms, the more entrepreneurial the university will become. Senior management buy-in, while not yetuniversal is increasing so there is growing commitment to expanding activities further.

In addition, further research needs to take more account of the effects of background difference – including gender, ethnicity and disability on the entrepreneurial experience. Birkbeck, similar to other public institutions, is committed to equality and diversity but there is much to be learned about how different characteristics have an impact on the entrepreneurial learning experience.

**REFERENCES**

# Artess, J., Hooley, T. & Mellors-Bourne, R. (ND). Employability: A review of the literature 2012 to 2016 [https://www.heacademy.ac.uk/knowledge-hub/employability-review-literature-2012-2016](about:blank) (accessed May 15 2017)

Bergmann, H., Hundt,C. & Sternberg, R. (2016). What makes student entrepreneurs? – On the relevance (and irrelevance) of the university and the regional context for student start-ups [Microsoft Word - Bergmann Hundt Sternberg\_2016\_Student entrepreneurs\_FINAL.docx (uni-hannover.de)](about:blank) (accessed August 18 2021)

BIS. (2015). Entrepreneurship Skills: Literature and Policy Review

[https://www.gov.uk/government/uploads/system/uploads/attachment\_data/file/457533/BIS-15-456-entrepreneurship-skills-literature-and-policy-review.pdf](about:blank)

Breznitz, S., Clayton, P., Defazio, D. & Isett, K. (2018). Have you been served? Have you been served? The impact of university entrepreneurial support on start-ups’ network formation. *Journal of Technology Transfer*, 43(2), 343–367. https:// doi.org/10.1007/s10961-017-9565-0

Breznitz, S. and Zhang, Q. (2021).'Entrepreneurship education and firm creation.' *Regional Studies*, pp. 1-16. DOI: 10.1080/00343404.2021.1878127.

Charles, D. (2012). ‘The entrepreneurial university: myths, legends and contradictions’ Paper presented at the Uddevalla Symposium, Faro, Portugal June 14-16, 2012

Clark, B. (1998). Creating entrepreneurial universities. Oxford: Pergamon

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

Creator Fund. (2020). [State-of-Student-Startups.pdf (thecreatorfund.com)](about:blank)

Daniel, E., Henley, A. & Anwar, M. (2019). Contemporary ethnic minority entrepreneurship in the UK. [International Journal of Entrepreneurial Behaviour & Research](about:blank) 25(6) DOI:[10.1108/IJEBR-01-2019-0021](about:blank)

De Silva, M. & Wright, M. (2019). [Entrepreneurial co-creation: societal impact through open innovation](about:blank). R&D Management 49 (3), pp. 318-342. ISSN 0033-6807.

Etzkowitz, H. (1983). Entrepreneurial scientists and entrepreneurial universities in American academic science. *Minerva* 21:198-233

Etzkowitz, H. (2003). Research groups as quasi-firms‘: the invention of the entrepreneurial university. *Research Policy* 32 1, 109–121.

Etzkowitz, H., Webster, A., Gebhardt, C. & Cantisano Terra, B. (2000). The future of the university and the university of the future: Evolution from ivory tower to entrepreneurial paradigm *Research Policy* 29, 2 313-330

Henry, C. (2013). Entrepreneurship Education in HE: Are Policy Makers Expecting too Much? *Education and Training*, 55, 836-848.   
[http://dx.doi.org/10.1108/ET-06-2013-0079](about:blank) (accessed May 15 2017)

Hussain, J., Scott, J., Millman, C., Hannon, P. and Matlay, H. (2007). ‘Ethnic minority graduate entrepreneurs in the UK: Characteristics, motivations and access to Finance’, *Industry & Higher Education*, 21 (6): 455-463. DOI:[10.5367/000000007783099845](about:blank)

Kariv, D., Cisneros, L. & Ibanescu, M. (2019). The role of entrepreneurial education and support in business growth intentions: The case of Canadian entrepreneurs. *Journal of Small Business and Entrepreneurship*, 31(5), 433–460. https://doi.org/10.1080/ 08276331.2018.1468974

[Klimas](about:blank), P.,  [Czakon](about:blank). W.,  [Kraus](about:blank), S., [Kailer](about:blank), N. & [Maalaoui](about:blank) , A. (2020). Entrepreneurial Failure: A Synthesis and Conceptual Framework of its Effects *European Management Review* [Wiley Online Library](about:blank)

# Kruger, D. & David, A (2020). Entrepreneurial Education for Persons With Disabilities—A Social Innovation Approach for Inclusive Ecosystems *Frontiers in Education* [https://doi.org/10.3389/feduc.2020.00003](about:blank)

Lawton Smith, H. & Atter, A. (2014). ‘Entrepreneurship, teaching, research and practice: Birkbeck University of London’. In K.Viaidya (ed) Entrepreneurship for the Curious: Why study entrepreneurship?

Lawton Smith, H., Meschitti, V., Le Roux. J., Panton, M., Baines, N., Poulovassilis, A. & Henry C. (2020). Gender differences in the commercialisation of research: a study in UK universities. Chapter 12 in H. Lawton Smith., C. Henry., H. Etzkowitz & A Poulovassilis (eds) (2020) *New Perspectives in Gender, Science & Innovation,* Cheltenham Edward Elgar Publishing 242-260

Lee, Y. & Eesley, C. (2018). The persistence of entrepreneurship and innovative immigrants [*Research Policy*](about:blank). 47 (6), 1032-1044

McAdam, M. & McAdam, R. (2008). High tech start-ups in university science park incubators: The relationship between the start-up’s lifecycle progression and use of the incubator’s resources. Technovation, 28(5), 277–290. [https://doi.org/10. 1016/j.technovation.2007.07.012](about:blank)

Mason, C. & Arshed, N. (2013) Teaching Entrepreneurship to university students through experiential learning. *Industry & Higher Education*, 27 6 449-463

Micozzi, A. & Micozzi, F. (2020)*.* The entrepreneurial intention in female university students: an Italian case Chapter 15 in H. Lawton Smith., C. Henry., H. Etzkowitz & A Poulovassilis (eds) (2020) *New Perspectives in Gender, Science & Innovation,* Cheltenham Edward Elgar Publishing 305-327

Miller, D. & Acs, Z. (2017). The campus as entrepreneurial ecosystem: The University of Chicago. Small Business Economics, 49 (1), 75–95. [https://doi.org/10.1007/s11187-017-9868-4](about:blank)

Muñoz, R., Salinero, Y. & Valle Fernández, M. (2020). Sustainability, Entrepreneurship, and Disability: A New Challenge for Universities *Sustainability* https://www.google.co.uk/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKEwjg2uSL0LXyAhXLgVwKHbQSBUwQFnoECAcQAQ&url=https%3A%2F%2Fwww.mdpi.com%2F2071-1050%2F12%2F6%2F2494%2Fpdf&usg=AOvVaw1XjeA3nl81ytOtUTeKXpgN

# Politis, D. (2005). The Process of Entrepreneurial Learning: A Conceptual Framework Entrepreneurship, theory and practice [29 4,](about:blank)399-424[https://doi.org/10.1111/j.1540-6520.2005.00091.x](about:blank)

QAA. (2012). Enterprise and Entrepreneurship Education: Guidance for UK higher education providers, available at: www.qaa.ac.uk/Publications/InformationAndGuidance/Pages/enterprise-entrepreneurshipguidance.asp (accessed August 18 2021).

Savva, R. et al. (2019) *Future of Entrepreneurship: The role universities can play in creating a new paradigm in entrepreneurial learning*. (Ed. Ayres, S.). Birkbeck, sponsored by Santander Universities.

Shane S. & Venkataraman, S. (2000). The Promise of Entrepreneurship as a Field of Research. *The Academy of Management Review*, 25, 217-226.

Smilor, R. (1987). Managing the incubator system: Critical success factors to accelerate new company development. IEEE Transactions on Engineering Management, EM-34(3), 146–155. [https://doi.org/10.1109/TEM.1987.6498875](about:blank)

Spigel, B. (2017). The relational organization of entrepreneurial ecosystems. *Entrepreneurship Theory and Practice*, 41(1), 49–72.

Stam, E. (2015). Entrepreneurial ecosystems and regional policy: A sympathetic critique. European Planning Studies, 23(9), 1759– 1769.

Startup Canada. (2019). Framing, Avoiding and Overcoming Failure: Insights from Canadian Entrepreneurs [https://www.startupcan.ca/failure-report/](about:blank)

Stinchcombe, A. (1965). Social Structure and Organizations. In: March, J.P., Ed., Handbook of Organtzatlons, Rand McNally, Chicago, 142-193.

Wright, M., Siegel, D. & Mustar, P. (2017). An emerging ecosystem for student start-ups. *Journal of Technology Transfer*, 42, 4, 909–922. https://doi.org/10.1007/s10961-017- 9558-

**Table 1. Content of undergraduate and postgraduate entrepreneurship modules at Birkbeck**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Module** | **Objectives** | **Syllabus** | **Guest speakers?** | | **Mentoring** | **Types of learning/ paradigms** |
| **Undergraduate** | | | | | | |
| *Entrepreneurship and Small Business*  *(E&SB)* | * Understand what is meant by entrepreneurship and small business * Appreciate the nature and processes of entrepreneurship by applying appropriate concepts to an understanding of new business creation and growth * Critically reflect on small business activities in the light of evidence of patterns and from case studies * Identify the role of public policy and its limitations in influencing the environment for entrepreneurship and small business both in the UK and in other countries. | * Co-creation: different types of entrepreneurs working together * Co-creation: different types of entrepreneurs working together * Small businesses and social networks * Entrepreneurship and business failure * Entrepreneurial motivation and Decision making * Entrepreneurial opportunity and Scaling up * Business Model and Business Plan * Finance and small business * How small businesses generate value from their interactions with universities | Yes | In specific circumstances after the lecture | | Reflective entrepreneurial learning  Experiential learning through follow-up activities after a lecture. |
| The business project (TBP) | Provides an opportunity for you to develop a viable business plan for establishing a new business venture or introducing innovation (e.g. a new product, service, process, business or project development) in an established organisation | * The new business planning process and format * Researching internal and external environment * Developing the business concept * Developing the marketing plan * Developing the operation plan * Developing the financial plan | Yes | In two sessions | | Experiential entrepreneurial leaning of entrepreneurial skills, business plan development and entrepreneurial mindset |

|  |
| --- |
| **Postgraduate Modules** |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Entrepreneurship & Innovation (E&I) | * analyse information on entrepreneurship and innovation and synthesise it to evaluate decision alternatives * appreciate and understand the nature and processes of entrepreneurship and innovation by applying various concepts to an understanding of the management of new business creation and growth * understand and critically assess issues of entrepreneurial behaviour and innovation and firm performance * develop the capability for evaluating enterprise policies in different national and regional contexts. | * Schumpeter and his legacy * Innovation as a management process * Innovation as an interactive process * Innovation in manufacturing and services * Finance for innovation * Business growth * Business failure * Academic entrepreneurship * The policy environment. | Yes | On occasion with follow up with individual guest speakers. | Reflective entrepreneurial learning  Experiential learning through follow-up activities for example attending CIMR events. |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| *Entrepreneurial Venture Creation (EVC)* | * Develop a viable business plan for establishing a new business venture or introducing innovation in an established organisation * Discover and/or create opportunities to generate value to potential customers * Conduct research necessary to gain in-depth knowledge required to develop a business plan * Devise a marketing plan to generate value to customers * Design a plan to operationalise a business model * Develop a financial plan for a business. | * The Business Model Canvas * Entrepreneurial opportunity and understanding your customers. * Your business model and macro, industry and internal environments * SWOT analysis and Business Concept. * Entrepreneurial marketing * Operation plan * How to prepare financial statements * How to secure finance: Pitching your business | Yes and mentors | Individual coaching sessions by mentors | Experiential learning of entrepreneurial skills, entrepreneurial mindset and business plan development |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| *The Entrepreneurship Process (EP)* | * Work as part of a team both offline and in an experiential workshop modality during class sessions to develop a sense of what it’s like to work in the earliest stages of a start-up. * Produce milestones to include team formation and reflective practice, defining the business aims, translating the idea into a financial forecast and building a pitch deck for early stage investment. * Produce materials and then test them by pitching to a panel of experienced investors. * Interact with expert industry session-facilitators, inter-session mentors and in class scenario-based challenges, to add depth to the guided learning and entrepreneurial content of the more business-oriented modules of MSc Bio-business, while calling on the use of insights from the life sciences focused modules. | **Phase 1**   1. Team formation   **Phase 2**   1. Market analysis 2. Financial considerations 3. The entrepreneurial pitch deck   **Phase 3**   1. Individual awareness and networking pitches 2. Communications and PR 3. Business Development 4. Reflection on mentoring and steering for course adjustment 5. Team Pitches | Yes | 6-weeks beginning in phase 2 of the module. | Experiential simulation and reflective practice. |
| *Entrepreneurship in Action (EIA)* | * “The programme challenges the orthodox business school approach to education, and instead focuses on cross-disciplinary collaboration. * Become a new type of business graduate: one who can combine genuinely creative thinking and innovation with core financial and strategic management skills”. * Acquire practical experience in applying tools learned in lecture programme to designing a new start-up project. | * The development of enterprise and * Entrepreneurship * Entrepreneurs as unique individuals * Entrepreneurial teams * Creativity * Identifying entrepreneurial opportunities * Formalising opportunities * Small business as an enterprise unit | No |  | Reflective entrepreneurial learning  Experiential learning |

1. [Business births, deaths and survival rates - Office for National Statistics (ons.gov.uk)](about:blank) (accessed may 20 2021) [↑](#footnote-ref-1)
2. [Startup Failure Rate: Ultimate Report + Infographic [2021] (failory.com)](about:blank) (accessed May 20 2021) [↑](#footnote-ref-2)
3. [Startup Survival Podcast - Discover how to think from crisis to opportunity (businesshitchhiker.com)](about:blank#:~:text=Theme%3A%20Get%20Better%2C%20Go%20Further%20%20%20,together%20%20...%20%208%20more%20rows%20) [↑](#footnote-ref-3)
4. [Enterprise Pathways — Birkbeck, University of London (bbk.ac.uk)](about:blank) [↑](#footnote-ref-4)
5. [Birkbeck and Santander Universities celebrate creating accessible pathways to entrepreneurship — Birkbeck, University of London (bbk.ac.uk)](about:blank) [↑](#footnote-ref-5)
6. [“Every one of our students has the potential to do something pretty remarkable” – Centre for Innovation Management Research (bbk.ac.uk)](http://www7.bbk.ac.uk/cimr/2020/07/22/every-one-of-our-students-has-the-potential-to-do-something-pretty-remarkable/) (accessed May 26 2021) [↑](#footnote-ref-6)