



## Experiential learning and the entrepreneurial university: An Irish case study

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## **Experiential Learning and the Entrepreneurial University: an Irish case study**

This paper explores the use and impact of experiential learning initiatives within an entrepreneurial university. Data is taken from two sources: interviews with eight academic managers; and six focus groups with learners. A mix of narrative structuring and thematic analysis is used to explore the design, delivery and assessment of experiential learning. We apply the Experiential Learning Theory proposed by Kolb (1984) as our theoretical lens. Experiential learning evokes a mixed reaction from the academic managers and students. The paper identifies three key themes (design, delivery and outcomes) which help to capture the complex mix of direct and indirect effects that experiential learning initiatives can have both at an individual and institutional level. We conclude that embedding experiential learning is a valuable part of the development of an entrepreneurial university.

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### **Abstract**

This paper explores the use and impact of experiential learning initiatives within an entrepreneurial university. Data is taken from two sources: interviews with eight academic managers; and six focus groups with learners. A mix of narrative structuring and thematic analysis is used to explore the design, delivery and assessment of experiential learning. We apply the *Experiential Learning Theory* proposed by Kolb (1984) as our theoretical lens. Experiential learning evokes a mixed reaction from the academic managers and students. The paper identifies three key themes (design, delivery and outcomes) which help to capture the complex mix of direct and indirect effects that experiential learning initiatives can have both at an individual and institutional level. We conclude that embedding experiential learning is a valuable part of the development of an entrepreneurial university.

**Keywords** – entrepreneurial university, experiential learning, pedagogy, curriculum, assessment.

### **Introduction**

Colombelli *et al.* (2019) and Cantner *et al.* (2020) explain that universities are the central actor within an entrepreneurial ecosystem, serving as anchor tenants. An entrepreneurial university plays an important role in creating knowledge but more importantly in the knowledge transfer process between industry stakeholders, staff and students (Autio *et al.*, 2014; Etzkowitz, 2014; Mack and Mayer, 2015; Nkusi *et al.*, 2020; O'Reilly and Robbins, 2019; Woods *et al.*, 2021). Within the literature on entrepreneurial universities much of the research has approached the topic from an operational perspective (Culkin, 2016; Klofsten *et al.*, 2019; O'Reilly *et al.*, 2019; Trequattrini *et al.*, 2018; Walshok and Shapiro, 2014). Furthermore, Bezanilla *et al.* (2020) report that the majority of research has been based on conceptual frameworks that seek to identify the features that characterize the entrepreneurial university, rather than explore their development.

Philpott *et al.* (2011) proposes that the development of an entrepreneurial university can be measured from different perspectives and using a variety of methods. A diverse range of initiatives in relation to experiential learning have been introduced across higher education systems over the last twenty years. Essentially, experiential learning allows the learner to integrate classroom learning with real life, real work experience. This means that learners can gain insights into potential careers; access mentoring relationships; network with future colleagues; and gain self-confidence with respect to their own knowledge and skill set (Cornell *et al.*, 2013; De Groot *et al.*, 2015; Gittings, 2020; Hawtrey, 2007; Lee and Berger, 2009; Wurdinger and Allison, 2017).

This paper explores the implementation of experiential learning initiatives, in an Irish context and the implications for the development of entrepreneurial universities. The paper proceeds as follows. In the next section we review the extant literature on entrepreneurial universities and experiential learning. Following from this discussion, we provide background information and details on our methodology. Section four uses the data from the interviews and focus groups to explore the design, delivery and assessment of experiential learning initiatives. The paper concludes by discussing what this tells us about the dynamic processes underlying learning within an entrepreneurial university and identifies avenues for future research.

**Experiential Learning and the Entrepreneurial University** The role of universities has changed, from sources of academic knowledge generation and well-educated human capital (Audretsch and Lehmann 2005) towards vehicles for policymakers to promote growth and innovation (Sandström *et al.*, 2018). Some universities ‘act not only as educators but also as institutional entrepreneurs, proactively networking, shaping regional strategies and attempting to change national policies’ (Raagmaa and Keerberg, 2017: 270). Over the last two decades these changes in the orientation and mission of universities has been captured in the literature (Bramwell *et al.*, 2008; Martinelli *et al.*, 2008; Philpott *et al.*, 2011; Stephens *et al.*

*al.*, 2007; Trequattrini *et al.*, 2018; Walshok and Shapiro, 2014) with the literature reporting that it is not university faculty but graduate students who are the primary entrepreneurial agents (Hayter *et al.*, 2017).

In order to define the entrepreneurial university, a range of additional activities must be captured, and a wider range of indicators utilised (Civera *et al.*, 2019; Walshok and Shapiro, 2014). A variety of definitions have been suggested for entrepreneurial universities, the definition used in this study is that an entrepreneurial university is ‘an institution that creates an environment, within which the development of entrepreneurial mindsets and behaviors are embedded, encouraged, supported, incentivized, and rewarded’ (Hannon, 2013: 12-13). According to Klofsten *et al.* (2019) the formal factors that shape the development of an entrepreneurial university include the development and implementation of entrepreneurial courses for students; support for tech transfer; flexible organization structure; and effective interaction among university, industry and government. The informal factors include: the attitudes of students and faculty toward entrepreneurship, the presence of entrepreneurial role models and an appropriate reward system for being an academic or student entrepreneur. We propose that experiential learning initiatives are an ideal way to connect these formal and informal factors.

Experiential learning allows the learner to integrate classroom learning with real life experience, gain insight into potential careers, develop mentoring relationships, network with future colleagues and gain self-confidence with respect to their own knowledge and skill set (Cornell *et al.*, 2013). Hawtrey, (2007) advises that experiential learning is likely to foster students learning on a higher-order level, such as their critical thinking ability, prosperity for self-direction in learning, improved student motivation and better retention of knowledge. The assumption being

that the greater the student's involvement the more profound the learning i.e., knowledge is created through experience (Kolb 1984).

Kolb and Kolb, (2005: 193) explain that 'although experiential learning involves tools and techniques to provide learners with experiences from which they can learn, it is above all a philosophy of education, a theory of experience'. Kolb developed a theory with four elements and proposes that for experiential learning to occur one must complete all four elements: concrete experience, reflective observation, abstract conceptualization and active experimentation. The extant literature (Borg and Stranahan, 2002; Girvan *et al.*, 2016; Gilmore, 2020; Illeris, 2007; Lee, 2008; Lim and Bloomquist, 2015; McCarthy, 2016; Pittaway and Cope, 2007; Wurdinger and Allison, 2017) consistently reports three key assumptions of experiential learning:

1. People learn best when they are personally involved in the learning experience.
2. Knowledge has to be discovered by the individual if it is to have meaning to them.
3. Commitment to learning is highest when they are free to set their own learning objectives.

Drawing on previous studies (Kolb and Kolb, 2005; Gittings, 2020; Hawtrey, 2007; Heyler and Lee, 2014; Wurdinger and Allison, 2017), it is proposed that experiential learning is likely to foster students learning at a higher-order level, such as critical thinking, prosperity for self-directed learning, improved student motivation and better retention of knowledge. We propose that the best environment for a student to learn from is in an environment that is close to real life as possible.

For experience to lead to learning, we must reflect on 'our experience in a continuous process of "making meaning" out of our experiences so that they contribute to our cognitive, aesthetic and affective development' (Hägg and Kurczewska, 2016: 2). In fact, we might say that until we engage in such reflection and meaning making, what we see or understand is an extremely limited view (Wurdinger and Allison, 2017). Experience is not only what happens to a person, but

also what a person does with it through interpreting, analyzing and reflecting. The concept of an experiential learning cycle provides an appropriate theoretical framework for the study of the manifestation of learning within higher education (Petkus, 2000) and we propose the development of key elements of an entrepreneurial university.

### **Methodology**

The philosophy adopted in this study is “interpretivist” as the purpose of the research is to create new, richer understandings and interpretations in relation to experiential learning (Saunders *et al.* 2015). Data was collected in two stages. First, interviews were conducted with eight academic managers. Second, a series of six focus groups were conducted with students from a range of subject areas. Previous studies have reported academic manager perspectives (Blair, 2016; Gallagher and Stephens, 2021; Gilmore, 2020; Martinelli *et al.*, 2008) or student experiences (Bienkowska *et al.*, 2016; Cook-Sather *et al.*, 2014; Cornell *et al.*, 2013; De Groot *et al.*, 2015; Heyler and Lee, 2014; Lee, 2008). We believe the capturing both and combining the findings adds greatly to the value of this study and that the combined key themes provide an enhanced structured from which to derive implications and recommendations.

**Stage 1:** For the interviews, the unit of analysis was an academic manager. All 15 academic managers at the site of inquiry were invited to an interview. For a variety of reasons only eight of the academic managers were available (50% are male and 50% are female). Their experience of higher education ranged from 10 to 25 years, with experience as an academic manager ranging from (4 to 18 years). A semi-structured interview schedule was adopted. Initially, the questions were in logical order – design, delivery, assessment and future views of experiential learning. However, adapting the questions and using prompts as appropriate, allowed the interviewer to adopt a more personal approach to each interview. A profile of the Academic Managers is provided in Table 1.

**Table 1. Academic Managers**

<b>P</b>	<b>Gender</b>	<b>Experience</b>	<b>Area</b>
[P1]	Male	15-20 years	Business
[P2]	Female	10-15 years	Business
[P3]	Male	5-10 years	Science
[P4]	Male	10-15 years	Online Learning
[P5]	Female	10-15 years	Education
[P6]	Male	15-20 years	Life & Physical Sciences
[P7]	Female	5-10 years	Online Learning
[P8]	Female	10-15 years	Humanities

**Stage 2:** For the focus groups the unit of analysis was a learner who has had experience of experiential learning during their studies. The sample was stratified across the three Faculties and the ten departments at the site of inquiry, controlling for gender balance. A total of six groups, each with 6-8 learners participated. The learners represent the diversity of experiential learning experiences that are offered at HEIs. These can vary from work placement of an extended duration to practitioner workshops. We acknowledge that these experiences and their impact differ greatly, but it is important to capture the many different manifestations and experiences associated with experiential learning.

The focus groups were semi-structured. The facilitator began with an explanation of experiential learning and then asked a series of predetermined questions about student experience, with follow-up questions used to stimulate discussion and explore new themes that were identified by group members.

**Table 2. Focus Group Participants**

<b>Department</b>	<b>Course</b>	<b>Level</b>	<b>Stage</b>	<b>Gender</b>
Tourism	BA Tourism Management	Level 8	Final	80% (F) 20% (M)
Law & Humanities	BA Criminal Justice	Level 8	Final	60% (F) 40% (M)
Health Studies	BSc Early Childhood Ed	Level 8	Final	100% (F)
Business	BBS (Man & Mark)	Level 8	Final	50% (M) 50% (F)
Science	BSc Vet Nursing	Level 7	Final	100% (F)



Both the academic managers and the learners had designed/completed one or more experiential learning activities and have shared experiences to draw upon. Data collection took place between February 2021 and October 2021. The interviews took place online via MS Teams. The Focus Groups were held face-to-face. The participants are all based in Ireland. Both the interviews and the focus groups lasted for circa 45 minutes. Following each interview and each focus group, the authors wrote a brief reflection on the interview. Thematic Analysis was applied to systematically “find patterns of meaning (themes) across the dataset” (Braun and Clarke 2012: 57). Narrative structuring (Kvale, 2016) is used to create a coherent story. The narrative is presented in the next section.

## **Findings**

### **Part A**

During the thematic analysis of the interview data three themes emerged: Design, Delivery and Assessment.

The first theme is **DESIGN**. It is evident that student engagement is strongly encouraged:

“We encourage lecturers to involve students as partners in the design of the learning materials or assessment, or their contract of engagement.” [P7]

There was also evidence that the academics encourage participation from students and design innovations that are tailored to the learners and their context. Benefits for staff, students, and institutions include enhanced: satisfaction and engagement; motivation and learning; meta-cognitive skills; improved quality of student–teacher interactions; and development of graduate competencies such as leadership skills (Cook-Sather *et al.* 2014). There was consensus that:

“Experiential learning cannot be completed in one module. It should be an approach embedded across programs.” [P5]

However, the interviewees cautioned that:

“Not every course fits with experiential learning” [P1] and “It takes time to develop these programmes.” [P3]

As students engage in hands-on tasks, they will find some approaches work better than others. They discard the methods that don't work, but the act of trying something and then abandoning it – ordinarily considered a “mistake” – becomes a valuable part of the learning process. Students learn not to fear mistakes, but to value them.

A challenge is that experiential learning pedagogies tend, to be expensive, time consuming, and challenging to implement.

“As of now, veterinary placement is six weeks, which is essentially a six-week job interview, sure it's fantastic for the employer.” [P6]

In fact, it was proposed that:

“The design of courses needs longer placement” when looking at it from the benefits of the student [P3] and that “The placement should start in March and run until September.” [P3]

There is a significant variation in the higher education sector in relation to the duration of placements and the credits awarded for placement activities. For instance, a full semester of placement can attract between 10 and 30 credits. In some cases, the placement experience is assessed based on pass or fail criteria with no credit applied. In general, higher education providers acknowledged that placements need to be of significant duration in order to provide reasonable outcomes. This concurred with the interviewees who strongly endorsed that the duration should be greater than six months. However, challenges do arise:

“I don't want the company to own the student. It's our student and sometimes you can have them for placement.” [P6]

“Students who completed placement in third year were being offered full time positions with the challenge then of how they would complete their final year which called for a redesign of the final year of study.” [P4]

The final year could be offered part time via an internship offering students a pathway to complete their degree and enter the workforce. The real-world aspect helps students connect, find meaning, and see the purpose of the experience. With traditional approaches students may struggle to grasp concepts that don't pertain to the “real world.” With experiential learning, students **are** given the opportunity to apply data and ideas in a real-world situation where they too play an active role.

Another interviewee spoke about working with industry to design the programmes:

“If industry is involved in the design, that’s your marketing almost done, because industry will have bespoke, more particular and advanced requirements.” [P3]

When companies and universities work in tandem to push the frontiers of knowledge, they become a powerful engine for innovation and economic growth.

The second theme which emerged was: **DELIVERY**.

“Students are trained to deliver to external audiences, all activity based, there’s no lecturing, with the mantra talk less, teach more, as the whole idea is that they learn by doing” [P8].

Learning by doing is the process whereby people make sense of their experiences, especially those experiences in which they actively engage in creating artifacts and exploring the world.

“We try to move away from the didactic approach and always in class have more active approach to learning.” [P5]

“The students present four case studies throughout the year.” [P1]

The connection between practice and theory is important as it demonstrates **a learner’s** ability to use evidence to increase your understanding of key concepts, justify decision making and inform future practice. The strength of this theory-practice connection also contributes to critical thinking and helps students to associate the practical value of learning theoretical concepts.

There are challenges in terms of delivery:

“The more active I make my sessions, the more I find it slows things down. There’s a stress on you to deliver a certain amount of content and because I tend to teach a lot of core modules, linked to professional bodies, they often have a high content level.” [P5].

The designing of the experiential learning activities and incorporating them into the curriculum requires additional hours and commitment from the lecturers. However, once the curriculum is designed and when the lecturer is delivering the course, they become a facilitator. The academics work hard to encourage discussion and interaction to promote the Socratic method of teaching.

“A good, flipped classroom is really well structured and set up, it’s not just a flick of a switch.” [P8].

Flipped classrooms open a range of opportunities for engaging in experiential learning. Not using class time for traditional lecture style delivery allows for peer learning, deeper group discussions, field trips, and group projects.

The final theme was **ASSESSMENT**

“There are key aspects to the assessment, they get assessed on their preparation which includes developing activities and formal lesson planning, assessed on their delivery, they reflect, work in teams.” [P8]

At the end of the workshop activity, learners reflect on what they have learned, how they might perform their new skills in the workplace or, what content is recognized to be highly beneficial.

With regards to placements, learners are encouraged to:

“Reflect on one case while they’re in practice and then they write two reflections of procedures associated with it.” [P6]

This approach encompasses the “reflective observation” stage of Kolb’s model combining concrete experience, reflective observation and abstract conceptualization. Moreover, the opportunity to reflect on our experiences is vital to the learning process. By encouraging learners to reflect on the activities they have participated in, they are no longer just focused on the ‘*how*’ of their task, but the learner also considers ‘*why*’ they are doing it.

“Assessment rubrics, this categorizes the student’s achievement and by giving formative feedback on their learning journey, they get an opportunity to see how they can improve” [P7]

Providing feedback means giving students an explanation of what they are doing correctly and incorrectly. When students have access to this information, they develop an awareness of their learning, and are more easily able to recognize mistakes and eventually develop strategies for addressing weak points themselves.

It was strongly stated that:

“Knowledge is not important anymore. Exams were good at examining knowledge. But what is more important than knowledge is the acquisition of knowledge. Therefore, park the exams and go with action learning assignments.” [P3].

I encourage universities to stay away from exams – they are really a memory exercise; with apprenticeships you have the opportunity to ensure the assessment is directly linked to the workplace.” [P4].

Unfortunately, examinations are limited in their ability to assess, evaluate, or encourage problem solving and critical thinking.

“Knowledge is not that hard to access. Using it is the challenge and that’s where the skills come in” [P8].

Supporting students to reflect effectively on their studies and work experience or experiential learning activity is crucial. It is not just the possession of knowledge or skills that define a graduate and the contribution they make to the workplace. Well-designed reflection promotes significant learning, including problem solving skills, higher order reason, integrative thinking, goal clarification, openness to new ideas, ability to adopt new perspectives and systemic thinking (Heyler and Lee, 2014; Leary and Sherlock, 2020).

## **Part B**

During the thematic analysis of the **focus group data five** themes emerged: skills, design, delivery, assessment and postgraduation.

## Skills

Students voiced their thoughts on how they feel their transferable skills were best developed. The majority believed that it doesn't matter how many "practicals" they attend on-campus it will never match the skills students gain in a workplace.

"Those skills would be developed more outside of the classroom. It's a lot more hands on I think."  
[LAW]

"You wouldn't learn it from a textbook. We go in and deal with children and scenarios that come in the moment." [ECCE]

"I feel only a small bit of these skills was acquired in college, but the majority of confidence and ability comes from placement." [V. NURSE]

The students reflected that the inhouse skills developed are transferable and that they could apply them while on placement:

"With comparing in house experiential learning to placement ... the planning activities was a significant transferable skill ... subconsciously thought it was annoying at the time." [ECCE]

"Yes definitely, presentations for when you're speaking to clients now in the practice." [V. NURSE]

Experiential learning activities aided the development of soft skills including teamwork, communication, planning and organization.

"We pick up lots of things we could bring to an organization." [LAW]

The students would prefer less group work, but they did recognise the benefits of teamwork. They commented that you learn to work with other adults so then when you're working with staff on placement you are more confident.

"Teamwork offers you the chance to mix with different personalities" "You learn from your classmates." [TOURISM]

On campus experiential learning activities allowed students to practice meeting deadlines, presentation skills, teamwork and organization. In conclusion, two broad domains of skills were identified: cognitive (i.e., critical thinking, problem solving, reasoning and argumentation,

information literacy) and non-cognitive (i.e., flexibility, responsibility, initiative, communication, conflict resolution, collaboration).

### **Design**

The students were involved in various experiential learning activities including guest talks, placements, activity days, workshops and field trips. The learners were involved in a diverse range of experiential learning activities. Field Trips were highlighted as a valuable and positive experience. In particular, a mock trial, held at the local courthouse was highlighted as excellent. For this form of experiential learning the learners were graded based on how they presented, how they worked as a group (an external professional contributed to the grading process). Other students who weren't offered a chance to complete placement due to its absence in course design strongly suggested there should be a work placement, and even if the course was extended by a year to accommodate this, they would still choose the course. also, modules and additional experiential learning activities that were not mandatory were less likely to be completed by students.

### **Delivery**

Most of the students felt they were knowledgeable of the theory prior to commencing experiential learning activities. The students who were going on placement they felt they could comfortably apply what they learnt in the classroom to their professional setting.

“We knew the theory behind it before the guest speaker was brought in.” [LAW]

“College sets the foundation for you and once you go into work then you realize everything you were taught is there. It's the building blocks for it.” [ECCE]

Those students who go on placement after six weeks of college work voiced a different opinion. They felt they had the basics but were not overly prepared. Those students felt they should be in college for the full academic semester.

“In first year, you are thrown in to the deep end – you have six weeks of theory and you don’t really learn that much in them six weeks but learn most from our placement.” [V. NURSE]

### **Assessment**

The students strongly voiced their opinion with regards to assessment methods, in particular, open book examinations.

“Because in work you’re going to open the book to find all that information. It’s how you then apply it that matters, and this is where the skills come into play. It doesn’t allow you to focus on the other things (application of knowledge) which is more important.” [LAW]

“Really the ones where you have to come in without it (the textbook), you’re just playing a memory game.” [TOURISM]

“In-person exams are just a memory test – they are not testing any other skill than how much information I can cram into my brain and regurgitate in three hours.” [V. NURSE]

One cohort was involved in the design of lesson plans. They were required to design a lesson plan present it to their lecturer and peers, in advance of delivery at a secondary school.

“You were assessed on the lesson plan, how well you delivered it and a reflection at the end. Reflection was an individual mark, and the rest was a group mark.” [LAW]

Students passionately spoke about the importance of individual grading within a group assignment. Work placements were typically, graded on a portfolio or journal basis. With a grade of pass or fail. Overall, students found their feedback very general and there was no placement feedback unless there are observation visits.

### **Post graduation**

The majority of the final year students involved in the focus groups believed that were not prepared to enter the workforce.

“It’ll take time, it’s not going to be easy, but you’ll learn eventually I guess.” [LAW]

“The big jump between graduation and professional employment. I didn’t think I’d be able for the responsibility, and I am doubting myself a lot.” [ECCE]



“I don’t feel career ready. A lot of us thought this would be more practical but its very theory based. This semester and last semester we haven't done any practicals.” [TOURISM]

“The reason we did 4th year was because we didn’t feel ready to go into the working environment full time. [V. NURSE]

Those involved in placements throughout the duration of their studies held a different perspective regarding professional employment post-graduation.

“It’s easier to get a job when you finish college having completed professional work placement.” [LAW]

These students highlighted the value of networking with professional firms during their studies. Indeed, many of the students were already being contacted by professional practices for employment post-graduation.

### **Discussion**

In this section we combine the three themes from the interviews (design, delivery and assessment) with the five themes from the focus group (skills, design, delivery, assessment and post graduation). The combined themes are design, delivery and outcomes.

**Design:** this study indicates that experiential learning cannot be completed within a single module. But must be embedded across a range of modules. Design must take cognizance of expense, challenges and how time-consuming experiential learning activities are to implement. Blair (2016) emphasizes that simply inserting experiential learning instruction into education without providing a consistent experiential pedagogical framework reduces achievement for learners.

**Delivery:** in this study there is evidence of a move away from the didactic approach to learning focusing on experiential learning activities. Academics are engaging learners in more hands-on creative modes of learning (i.e., flipped classroom). Universities should

embrace innovative teaching techniques which incorporate the student as a creator of their own learning.

**Outcomes:** graduates continue to face challenges in obtaining employment specifically related to their discipline (Sarfraz *et al.*, 2018). Embedding experiential learning can play a key role in the growth of an entrepreneurial mindset with greater capacity to adapt within modern workplaces (Martin *et al.*, 2013). There needs to be an emphasis on success post-graduation.

Kolb (1984) provides a conceptual model and practical framework for designing, implementing, and evaluating experiential learning. Kolb proposed that for successful experiential learning there must be concrete experience, reflective observation, abstract conceptualization and active experimentation. We have used the four classifications proposed by Kolb to help capture the different responses, activities and perspectives of the academic managers and students. Additionally, this allows us to capture the diversity of experiential learning approaches.

**Concrete Experience:** a wide array of experiential learning activities are employed by the academics, including work placements, case studies, apprenticeships, special purpose awards, workshops, and role play. Thus, the learner is “experiencing” as they are involved in a specific experience linked to a key learning outcome/knowledge competency.

**Reflective Observation:** learners write reflections in their lab books, receiving feedback and classroom discussions. Therefore, the learner is “examining” as they reflect on this experience based on multiple viewpoints, seeking to find meaning.

**Abstract Conceptualization:** the learner is “explaining” as they draw logical conclusions and may add to his or her own conclusions the theoretical constructs of others. The

academics ask the students to write reflections of their work-based activities which combine theory with experience.

**Active Experimentation:** the learner is “delivering” to a new audience after reflective observation and abstract conceptualization. Learners might complete an assessment based on a topic addressed by a guest speaker guiding the learner’s decisions and actions that lead to new concrete experiences.

The delivery of skills to organizations creates challenges for higher education in terms of design of curriculum and pedagogy. There is a need to change how universities manage their programme design process. A greater diversity of offerings in terms of content, duration, delivering modes, assessment design and the proportion of work-based learning is needed. However, academics must create a balance between pedagogical creativity and the limitations imposed by professional bodies, infrastructure, resources and time constraints.

### **Managerial and policy implications**

Policymakers, senior leaders, academics and stakeholders across higher education systems now place an increased emphasis on the importance of experiential learning. Universities should ensure that programmes are delivered in a way that encourages students in an active role. Experiential-based approaches help to expose learners to different ideas and knowledge through the learning process. Simply inserting experiential learning instruction into education without providing a consistent experiential pedagogical framework reduces achievement for learners. Engaging students as partners is key as universities embrace innovative teaching techniques which incorporate the student as a creator of their own learning. There must also be a recognition that students have a part to play in developing a sense of autonomy that empowers the learning process.

### Limitations and future Research

The empirical results reported in this paper should be considered in the light of some limitations. The first limitation concerns the sample size. Although the sample size is reasonable a greater number of respondents and from different universities may have added additional perspective. Future research might use a survey, administered to a larger and more representative sample of the population with appropriate, quantitative statistical analysis. Furthermore, future research may want to incorporate perceptions of industry partners and a longitudinal study may provide greater insights capturing the embeddedness of experiential learning in the development of an entrepreneurial university.

### Conclusion

There is evidence in the literature review and data presented in this paper of a shift in emphasis for universities that includes an emphasis on greater use of experiential learning. This shift positions the university as a facilitator, developing student, graduate, and employees through the comprehensive provision of experiential learning initiatives. A greater diversity of offerings in terms of content, duration, delivering modes, assessment design and the proportion of work-based learning is needed. There is a marked distinction between the benefits of implementing experiential learning pedagogic approaches and the limitations imposed by existing systems, policies and procedures. We propose that overcoming these limitations is part of the development of an entrepreneurial university. It is a challenge to navigate this balance and help students achieve their academic and professional goals. This research enhances the existing literature on entrepreneurship, entrepreneurial universities and experiential learning. Furthermore, this research informs best practice and thus, should be of use to entrepreneurs, support agencies, sponsors and academics.

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