

Integrative Entrepreneurship Education: The Case of EDEM Business School

Educación Integrativa para el Emprendimiento: El Caso de EDEM Business School

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Donaldson, C., & Villagrasa, J (2024). Integrative Entrepreneurship Education: The Case of EDEM Business School. *Journal of Management and Business Education*, 7(3), 419-434. <https://doi.org/10.35564/jmbe.2024.0023>

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Language: English

Received: 28 Nov 2023 / Accepted: 11 Jul 2024

Funding. The authors received no financial support for the research, authorship, and/or publication of this article.

Ethical Statement. The authors confirm that the research obtained informed consent from participants, explaining the treatment of the provided data.

Declaration of conflicting interests. The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

CRedit author statement. All authors have contributed equally to all parts of the work.

ABSTRACT

Changing economic landscapes have shifted from industrial innovation to entrepreneurial knowledge-based economies requiring educational experiences based on practice and real-world connections. Whereas much focus has centred on curricular activities to achieve this aim, in comparison there is scant attention paid to the important role that organised and spatially embedded out-of-curriculum activities can afford. We present an innovative and practical initiative that takes a systematic approach to effectively blend diverse elements from both the formal and informal curriculum, providing a holistic and immersive learning experience for aspiring entrepreneurs. By embracing a multifaceted method, the integrated model of entrepreneurship education that we detail aims to equip students with the knowledge, skills, and networks needed to navigate the complexities of entrepreneurship and excel in today's dynamic business landscape.

Keywords. Entrepreneurship education, ecosystem, communities of practice.

RESUMEN

Los cambios en los contextos económicos han pasado de la innovación industrial a las economías basadas en el conocimiento emprendedor, lo que requiere experiencias educativas

basadas en la práctica y conexiones del mundo real. Aunque gran parte del enfoque se ha centrado en las actividades curriculares para lograr este objetivo, hay poca atención prestada al importante papel que pueden desempeñar las actividades organizadas y espacialmente integradas fuera del currículo. Presentamos una iniciativa innovadora y práctica que adopta un enfoque sistemático para combinar eficazmente diversos elementos tanto del currículo formal como del informal, proporcionando una experiencia de aprendizaje holística e inmersiva para los aspirantes a emprendedores. Al usar un método multifacético, el modelo integrado de educación empresarial que detallamos tiene como objetivo dotar a los estudiantes de los conocimientos, habilidades y redes necesarios para navegar por las complejidades del emprendimiento y destacar en el dinámico panorama empresarial actual.

Palabras clave. Educación empresarial, ecosistema, comunidades de práctica

INTRODUCTION

Universities assume a fundamental role in preparing students to be successful in their working lives (Tynjälä et al., 2003). To meet this challenge, the customary teaching and research missions of universities are extended to incorporate a ‘third mission’ of economic development through innovation. Changing economic landscapes have shifted from industrial innovation to entrepreneurial knowledge-based economies (Etzkowitz, 2016), meaning that educational experiences with most effect are those grounded in practice and real-world experiences (Hägg & Gabrielsson, 2019). The belief is that authentic experiences are better positioned to provide a continual flow of high-quality entrepreneurial individuals (Rasmussen & Sørheim, 2006).

Accordingly, entrepreneurial universities have emerged affording mechanisms to help contribute to regional socio-economic development (Vesperi & Gagnidze, 2019). One such mechanism is the inclusion of entrepreneurship education programmes that are driven by entrepreneurial learning, pedagogical innovation and the delivery of contemporary relevant content in learner-centred ways (Guerrero & Urbano, 2012). Whereas much focus has been on curricular activities (Hägg & Gabrielsson, 2019), in comparison there is scant attention paid to the important role that organised and spatially embedded out-of-curriculum activities can afford (Pocek et al., 2022).

Transferring entrepreneurial knowledge into value is a distributed task and for this reason entrepreneurial universities are often nested within an ecosystem of complementary support systems in close geographic proximity (Breznitz & Zhang, 2019). Interplay is permitted amongst individual agency, learning and institutional contexts that allow for the diffusion of ideas and vicarious learning (Donaldson & Villagrana, 2023). Consequently, spaces dedicated to entrepreneurship-specific activities have been constructed, including student start-up incubators and accelerators (Hassan, 2020), indicating a clear agreement that entrepreneurial learning extends beyond formalised classroom experiences.

One popular way which entrepreneurial universities transcend classrooms is through extra-curricular entrepreneurship activities. A wide range of extra-curricular entrepreneurship activities exist (Hammoda, 2023) from clubs defined as ‘informal, non-accredited student-led societies [...] whose main goal is to attract students who are interested in learning about enterprise and developing enterprising skills to either start their own businesses or to become more enterprising people’ (Pittaway et al., 2011p39) to start—up competitions characterized by a shorter temporal duration and the aim of increasing new venture entry (Stolz & Sternberg, 2022). We define extra-curricular activity broadly in this work as “non-credit bearing activity in HE [Higher Education] which the student undertakes voluntarily and are usually applied, experiential activities where theoretical

underpinning is downplayed" (Maragh, 2024 p2). Although entrepreneurship extra-curricular activities are extensive, limited knowledge exists surrounding their creation, contents, governance and value, as well as how they can be effectively integrated with the formal curriculum (Pittaway et al., 2011; Pittaway & Cope, 2007).

In this work our goal is not for empirical validation, yet instead we focus on the issues of creation, contents and governance of a specific extra-curricular activity that is integrated with a formal undergraduate degree. We present an innovative initiative that takes a systematic approach to effectively blend diverse elements from both the formal and informal curriculum, answering calls to provide a holistic and immersive learning experience for aspiring entrepreneurs (Vohra et al., 2022) and affording a potential solution to the perceived entrepreneurship education deficit in Spain (Pérez-Luño et al., 2021). By embracing a multifaceted method, the approach aims to equip students with the knowledge, skills, and networks needed to navigate the complexities of entrepreneurship and excel in today's dynamic business landscape (Killingberg et al., 2023). The programme has been recently implemented at EDEM Business School (EDEM) that forms one of three components, alongside an onsite start-up incubator and accelerator and a venture capital investment company, of Marina de Empresas (MdE) entrepreneurial ecosystem in Valencia.

Despite the growing interest in entrepreneurship education, there is still a notable gap in the practice literature when it comes to the design and impact of cohesive programmes that encompass a range of educational activities, including those within and beyond the formal curriculum (Pocek et al., 2022). This paper aims to bridge this gap by presenting a holistic model for integrated entrepreneurship education that is rooted in a community of practice framework. We aim to contribute to the field of entrepreneurship education teaching and policy, providing practical insights into the value and impact that an integrated stance can hold.

LITERATURE REVIEW

Universities are now adopting an entrepreneurial approach that goes beyond the generation of knowledge for its own sake and progresses towards the search for solutions to the many and diverse challenges confronted by an increasingly entrepreneurial society (Audretsch, 2009; Morris & Liguori, 2016). Although universities maintain their academic traditions, they now also endeavour to instill greater relevance and practicality in what, why and how of their learning processes (Neck & Corbett, 2018).

As policymakers and educators explore different ways to encourage and teach learners to travel their entrepreneurial journey, it is becoming evident that much practice falls short of what is required (Nabi et al., 2017). This is concerning as when students develop entrepreneurial competences, they are afforded with a valuable transition mechanism that can help facilitate positive contribution to mainstream society and act as a springboard for future success within their work lives (Obschonka et al., 2017). To foster entrepreneurial individuals, universities are searching for ways to adapt and adjust current practice to inspire broader enterprising attitudes and to encourage experiential knowledge generation on the narrower process of new venture creation (Hägg & Gabrielsson, 2019).

Entrepreneurship education has gained significant attention in recent years as means to develop entrepreneurial mindsets, skills, and behaviours among students (Neck & Corbett, 2018). Traditional approaches have predominantly focused on initiatives that are delivered within the formal curriculum. The formal curriculum is a critical foundation for entrepreneurship education and a well-designed curriculum is thought to offer a comprehensive understanding of entrepreneurship principles, theories, and frameworks (Debarliev et al., 2022; Tiberius & Weyland, 2023).

Nonetheless, entrepreneurship education curricula are recommended to be practical and action-oriented, incorporating innovative pedagogical tools such as case studies, simulations, and interactive discussions that can help facilitate critical thinking and decision-making skills (Oksanen

et al., 2023). Furthermore, the formal curriculum is often driven by the need to develop key entrepreneurial competences such as opportunity recognition, business planning, marketing, financial literacy, and venture growth strategies (Haase & Lautenschläger, 2011).

Whilst not diminishing the value of such curriculum-based learning events, entrepreneurship is a highly experiential discipline that goes beyond traditional classroom learning (Nabi et al., 2017). Extra-curricular activities offer unique opportunities to both supplement and advance learning through engaging students in real-world entrepreneurial experiences, enabling students to apply theoretical concepts, develop practical skills, and cultivate an entrepreneurial mindset (Ratten & Usmanij, 2021). Through experience-based pedagogies extra-curricular activities assume an important role in the development of student interests, ability and interpersonal skills (Almeida et al., 2021; Kickul et al., 2008; Pittaway et al., 2011; Rubin et al., 2002; Vondracek & Skorikov, 1997).

Extracurricular activities reside outside the formal curriculum making them voluntary and with greater focus on employability (Arranz et al., 2017). That-being-said they are often supported by multiple stakeholders and institutionally legitimised by universities to increase their perceived value for students through allowing learners to engage with relevant communities of practice. For example, activities can provide exposure to the social realities of entrepreneurship through conferences and events whilst also allowing students to become embedded within entrepreneurship-specific facilities and infrastructure such as start-up accelerators and investment forums (Arranz et al., 2017; Lefebvre & Certhoux, 2023).

Research on extra-curricular activities remains comparatively scarce even though they are widely accepted by educational practitioners as an important way to promote and support entrepreneurship as a viable career pathway (Maragh, 2024; Pittaway et al., 2015). One of the most common forms of extra-curricular offering are clubs aiming to educate, inspire and motivate learners into entrepreneurship through developing their entrepreneurial self-efficacy (Pittaway et al., 2011). These clubs are typically independent, student led and with a social orientation (Hammada, 2023). Many other forms of extra-curricular activity exist highlighting greater diversity in terms of aims, provision and governance and are usually supported by a wider institutional structure. For example, student start-up programmes led by universities permit students to participate in venture-specific training embedded in networks of likeminded entrepreneurs (Pocek et al., 2022).

Different entrepreneurship activities therefore have different functions and goals, yet these goals are highly complementary. Our model is novel in a Spanish context in that it incorporates the socialization, situated and practice components of extra-curricular offerings in a hybrid format linked with, and grounded in, the formal curriculum. For entrepreneurship educators a considerable amount of time and effort can be spent on building and delivering extracurricular activities in the belief that they enhance student learning (Pittaway et al., 2015). A potential danger arises that sees disconnect between curricular and extra-curricular provision through which learning goals can become fragmented and isolated from the contents of the formal curriculum (Hägg & Gabrielsson, 2019). Extra-curricular activities are distinct from, but compatible with, the formal curriculum (Preedy et al., 2020). Arranz et al (2017) found that curricular activities can develop a positive attitude towards entrepreneurship but are limited in building the skills needed to be an entrepreneur. They argued that combining extracurricular activities can act as a key support mechanism to transform these motivations into action. Given the potential issue of isolationist practice, we build on recent thinking that suggests a comprehensive and integrated approach (i.e. hybrid), combining curriculum and extra-curricular activities, can significantly enhance the effectiveness of entrepreneurial learning experiences for students (Nabi et al., 2017).

THEORETICAL FOUNDATIONS FOR A MODEL OF INTEGRATIVE ENTREPRENEURSHIP EDUCATION

Entrepreneurial learning is taken to emerge from experiential learning embedded in real-world work contexts (Neck & Corbett, 2018). Students therefore benefit from immersion in authentic, highly contextualised real-life situations allowing them to actively participate in relevant communities of practice over time (Pittaway et al., 2015). In entrepreneurship, pathways are often unclear, and the process is plagued by uncertainty (Donaldson et al., 2023a). This creates multiple contexts and temporal phases where students are afforded many opportunities to learn (Cope, 2011; Donaldson et al., 2021).

Entrepreneurial learning becomes a socialisation process (Weidman et al., 2001) situated in the social practices and relationships of the wider entrepreneurship community (Cope, 2011) (see Figure 1). Socialisation refers to “the process by which persons acquire knowledge, skills and dispositions that make them more or less effective members of their society” (Brim, 1966 p3). Students learn the distinct features and characteristics of the entrepreneurship profession in addition to becoming a member of the entrepreneurship community.

For example, entrepreneurs will often assimilate their knowledge and ideas with others in their surrounding environments to take decisions and reflect (Pocek et al., 2022). Similarly, entrepreneurs can learn vicariously from the actions and experiences of others, as when avoiding actions that in the past resulted in failure (Donaldson & Villagrasa, 2023; Politis et al., 2019). This social dimension of entrepreneurial learning means that individuals can interact with like-minded others, embedding students within an entrepreneurial community that provides access to valuable resource networks and a supportive normative environment (Donaldson et al., 2023a). Students through a transformative process of becoming, move from an ‘outsider’ to an ‘insider’ of the entrepreneurship community.

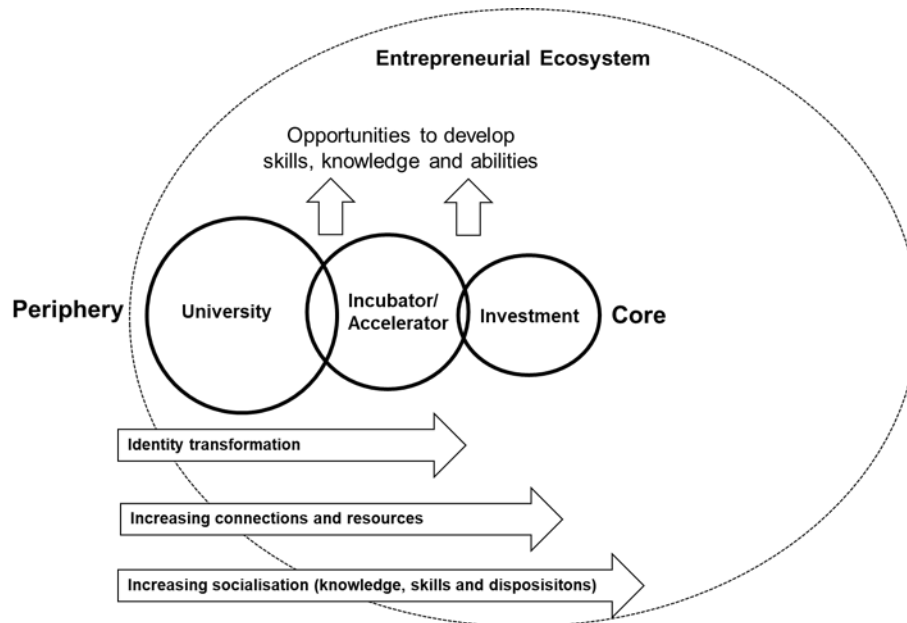
The entrepreneurial ecosystem affords an ideal platform to establish links between education and real-world entrepreneurship participation given the presence of wide, varied and mutually serving communities of practice (Donaldson, Newbery, et al., 2024; Roundy, 2019; Stam & van de Ven, 2021). Entrepreneurial ecosystems provide an interpretive mechanism for sensemaking and sense giving of learning experiences as one becomes increasingly involved in core entrepreneurial ecosystem activities. Afforded are opportunities to build social confidence through connecting with like-minded entrepreneurial actors.

Thus, the philosophical underpinnings of Lave and Wenger's (1991) social learning theory, particularly the notion of ‘legitimate peripheral participation’ (LPP), emphasising learning as an interactive process among social, agentive, and practical dimensions, serves as the foundation for our entrepreneurship programme development. LPP infused provision offers students the opportunity to extract competences from structured valued practices, power relations, and ecosystem events. By gaining access to the entrepreneurial community and through more meaningful forms of contribution extending beyond ‘academic content’, learners develop a meta outlook that fuels their motivation to embrace the learning possibilities present. For example, students can participate in cross-curricular business challenges, develop their own business, receive personalized entrepreneurship guidance, or develop their entrepreneurial capacities through intrapreneurship in existing companies.

The formal curriculum coincides with an element of improvised practice (Lave & Wenger, 1991) creating a learning curriculum encouraging diverse social interactions. Operating at the periphery offers distinct advantages for students, for example, by stimulating creativity and resourcefulness whilst providing opportunities for reflective practice in emergent idea spaces (Kolb & Kolb, 2005). These idea spaces differ from those at the core of the community, as they are less time-pressured and characterized by reduced distractions, task complexity, and decision-making burdens.

Nevertheless, their significance in entrepreneurial ecosystem participation remains essential as they provide the potential to generate connections and associations thereby enhancing the learning experience.

Figure 1. The socialisation process as applied to an entrepreneurial ecosystem



CONTEXT

The entrepreneurship education hybrid model which we describe is a combination of curricular and extracurricular activity offered by EDEM, a non-profit foundation located in Valencia, Spain. Entrepreneurship in EDEM is seen as a journey, a 'lifepath' (Neck & Greene, 2011 p56). Entrepreneurship is a process that requires the progressive reduction of equivocality within increasingly unpredictable and highly complex environments (Galloway et al., 2019). It is accepted that interlocking patterns will emerge as individuals seek to iteratively navigate a continuous flow of interactions through learning, assembling resources, managing dynamic external contexts, and internally regulating cognitions thereafter.

EDEM belongs to a privately-owned entrepreneurial ecosystem of philanthropical origins known as MdE. MdE is composed of three distinct, however, interrelated institutions. These include, EDEM, Lanzadera (LZA), an entrepreneurship incubator and accelerator; and finally, Angels Capital S.L. a private investment company (Figure 2). As a collective the community, through a diverse and expansive range of programmes and courses, aims to satisfy the educational needs identified for different companies and individuals. A clear emphasis is on increasing perceptions of entrepreneurship as a viable career pathway, enrichment of the Spanish business environment, and the generation of wealth and well-being.

Figure 2. Overview of MdE entrepreneurial ecosystem and location of EDEM Emprende extra-curricular activity



At the heart of EDEM is the mission to educate students to become business leaders, executives, and entrepreneurs. This is achieved through the promotion of a set of core values embedded in leadership, a spirit of entrepreneurship, and a culture of effort. One of the key facets of EDEM is its link to industry with several high-profile business sponsors and members (over 170) including Air Nostrum, Deloitte, Coca Cola, and the Vodafone Foundation of Spain. Such close connection with corporations means that a large percentage of professors are active professionals with a wide range of experience in pedagogical practice and in the world of work. EDEM is affiliated with the two main public universities in Valencia through which two undergraduate degrees are offered, one in Business Administration and Entrepreneurship and another in Engineering and Business Management.

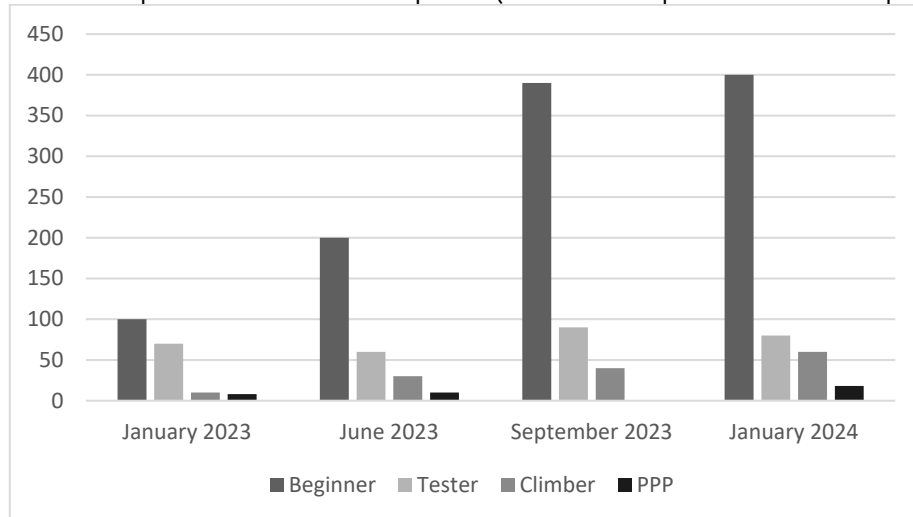
Students from EDEM can develop their own business ideas for their final degree projects equating to 500 hours or four months of real entrepreneurial exposure acting as a springboard towards entry into LZA. Ideally, students who have been supported within EDEM then transition into the LZA on a more permanent basis. Through a multi-sectoral perspective LZA aims to support and guide business ideas, projects, and nascent ventures into workable business models. LZA has 300 start-ups working in their co-working spaces and has accelerated over 1300 firms.

The last core component completing the entrepreneurship cycle in MdE is the investment company Angels Capital. Angels Capital has the mission to invest in entrepreneurial leaders so that they can develop sustainable companies and achieve high growth. During its initial stages Angels Capital invested in companies both within and outside the ecosystem however, as of 2017, focus shifted towards only those startups located in LZA. This is a clear advantage as the investment mechanism can rely on a large pool of quality entrepreneurial talent that they engage with daily.

EDEM EMPRENDE

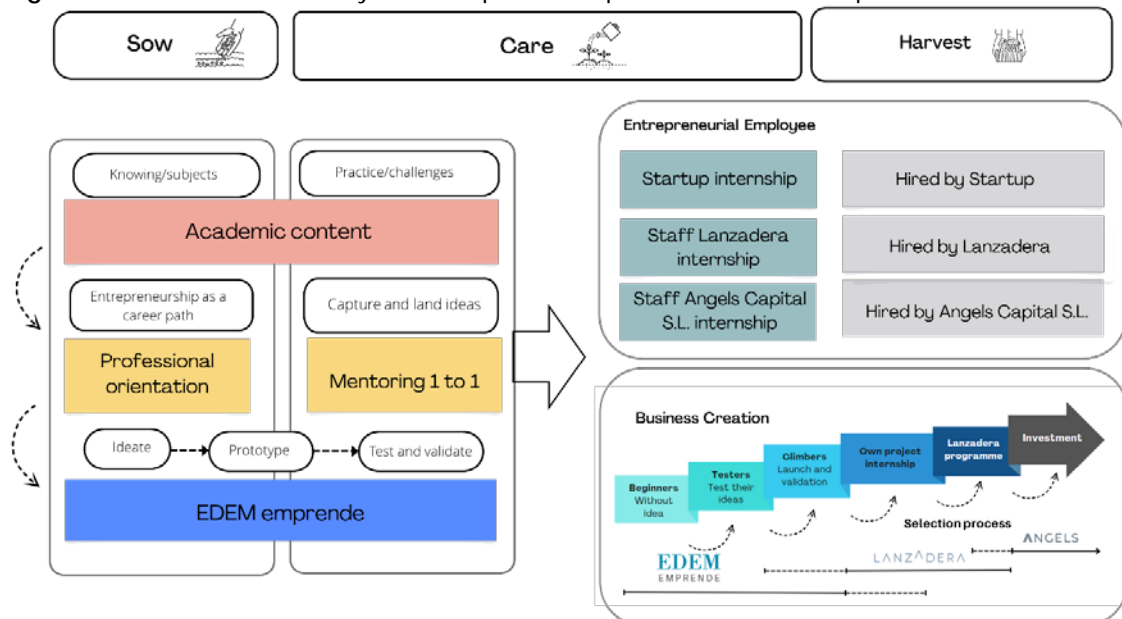
Edem Emprende is an extra-curricular entrepreneurship activity led by the university in collaboration with LZA and Angels Capital that was created for four underlying reasons. First, to allow like-minded students with an interest in entrepreneurship to get to know one another. Second, to have the opportunity to share individual talents as related to the entrepreneurship process. Third, to increase the attractiveness and perceived viability of entrepreneurship as a career option. Fourth, to increase start-up entry aligning with the core mission of EDEM. During the year 2023, from its creation in January, EDEM Emprende had 180 members with 80 active projects and 8 students working on their projects for their final degree project in LZA. As of January 2024, these numbers have risen to 400 members, 140 active projects and 18 students working on their projects in LZA (Table 1).

Table 1. Participation trends based on phase (PPP = development of their own project)



EDEM Emprende is voluntary and transversal to all university programmes. After an in-depth analysis of the formal curriculum in relation to its contents and methods EDEM Emprende was established to provide logical cohesion and progression to the different subjects and courses offered, from finances and marketing to new business creation and strategic management. There was motivation to supplement and extend the time-limited academically oriented curriculum that predominantly stands as inspiration via providing the necessary resources, tools, and contacts that student entrepreneurs may need to develop their own project whilst studying (Figure 3). The activity is focused on capacity building and execution, being open to students studying at undergraduate and graduate levels with no requirement for students to have a project already started. Instead, EDEM Emprende affords practical, hands-on learning allowing members to share knowledge and experiences.

Figure 3. An overview of the hybrid entrepreneurship education model implemented at EDEM



Knowledge-based and inspirational components that help reduce fear and uncertainty associated with the entrepreneurship process are complemented with active 'on the go' learning (Pittaway et al., 2015). In combination with curriculum subjects, the conveyance of entrepreneurship as a viable career pathway and opportunities to transform intentions into tangible

outcomes, for example through ideation and prototyping, create a powerful assemblage that can sow the initial seed of entrepreneurship in students. However, the pathway of EDEM Emprende is venture-creation centric and aims to transform this seed into validation, growth and eventually investment by Angels Capital. Student entrepreneurs are guided in a safe and supportive environment which helps them to develop an entrepreneurial side project in parallel to their studies.

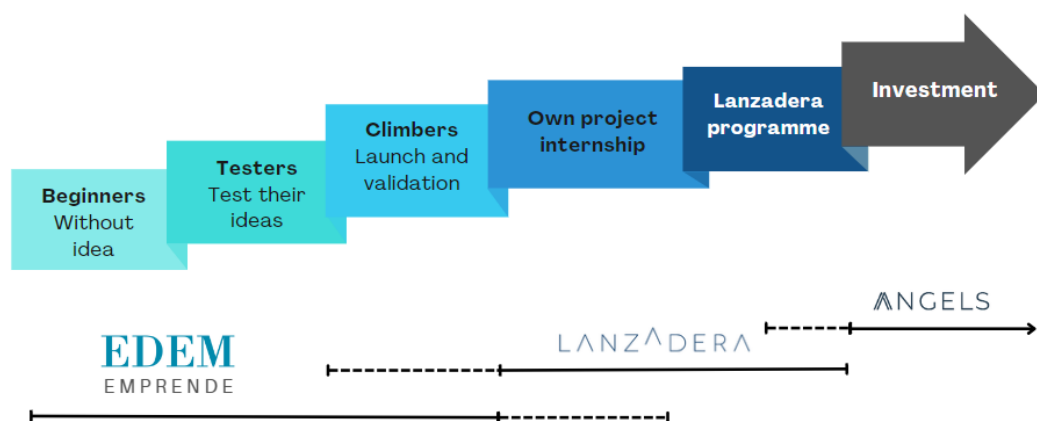
EDEM Emprende categorises members depending on their own specific zone of development (Vygotsky, 1978) (Figure 4). Beginners and Testers can be perceived as those most distant from the entrepreneurship community of practice. They are students that may not have a business idea or are only starting to test the validity of their ideas with customers. The main source of learning and socialisation that they are offered is through awareness of behavioural and cognitive expectations related to the entrepreneurship role (Weidman et al., 2001). These phases are predominantly preparatory and formal, used for recruitment and assessment of fit as students accumulate information on the reality of entrepreneurship. In EDEM Emprende due to experiential deficits meaningful participation is often limited for these groupings who benefit most from observation and vicarious forms of learning.

Climbers and own project ownership are transition phases representing the informal and personal stages of the socialisation process. Here student entrepreneurs are launching, validating and taking ownership of their business projects. They have built strong knowledge on their business model, value proposition and sector and have developed the capacity to execute (for example, they have an entrepreneurial team and necessary resources). They display a strong passion for their project and are willing to sacrifice time and effort to make their business a success. Informal modes of coaching and mentoring are provided in less structured ways to cope with the complexities and task diversity of the entrepreneurship journey.

Developing one's own personal project in LZA is seen as a rite of passage whereby students are evaluated by an independent committee composed of team members from EDEM, LZA and Angels Capital. Assessment criteria includes personal ability, commitment to EDEM and a project that meets LZA's selection criteria. The student upon acceptance into LZA to complete their personal project, which is a fundamentally an academic piece of work required for the completion of their undergraduate degree, enter a transition phase between student and entrepreneur (between EDEM and LZA). They benefit from an onboarding experience and a director of projects that guides and measures their entrepreneurial progress, meeting together a minimum of once per month.

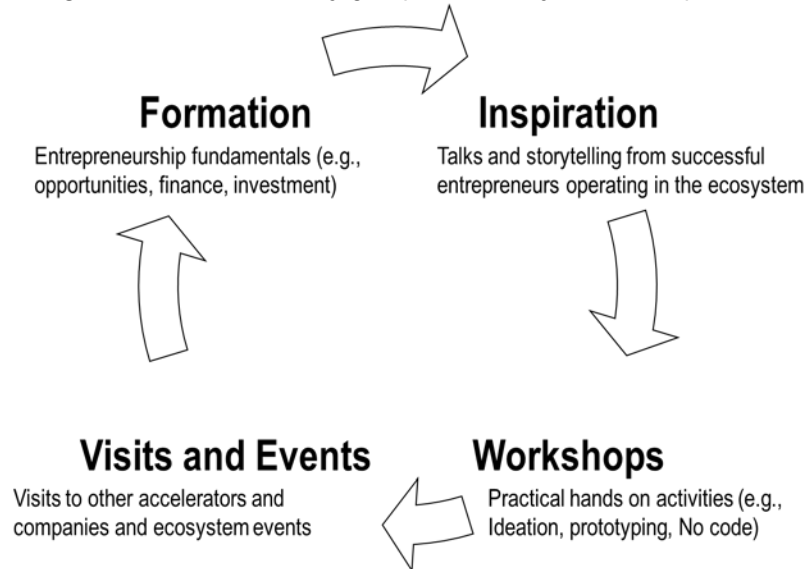
As learning and experience increases alongside the validation of their business projects, students then transition into the full LZA programme where they are active members of the entrepreneurship community of practice and have solidified their entrepreneurial identity. The final phase is receiving investment from Angels Capital.

Figure 4. Categories of learning in EDEM Emprende



A core element of EDEM Emprende is provision of practical activities that are not restricted by phase of learning yet instead all student entrepreneurs, both current and potential, can choose to attend a specific activity based on the relevance of the content (training, workshops and tools, inspirational talks, company visits, events and objectives presentations) (see figure 5). These activities are provided twice per week.

Figure 5. Practical activity groups offered by EDEM Emprende



Practical activities complement an out-of-curriculum organised portfolio of teaching and learning modules tailored to a particular aspect of the business creation process. This blended approach to entrepreneurship provision (Hammoda, 2023) means students receive general information during training sessions that is then combined with practical sessions using specific tools such as no-code and AI, or Facebook and Google ads to apply this knowledge to their own projects. Furthermore, students benefit from sector-based clubs that focus on a particular business environment or business model including marketplace, e-commerce and Software as a Service. Where possible EDEM Emprende tries to use current members of MdE who are considered experts in their field to deliver sessions.

As Figure 3 shows, there are two main employment outcomes sought from the integrated model. The first is that students continue to develop their own ventures, whilst the second sees students assume positions as entrepreneurial employees ideally within MdE or within member companies. This caters for individual idiosyncrasies in terms of circumstance and motivation.

DISCUSSION

Extracurricular entrepreneurship activities that help promote learning within relevant communities of practice afford a strong complement to the traditional orthodoxy of knowledge acquisition within the formal curriculum (Hammoda, 2023; Pittaway et al., 2015). Learners are viewed as actively participating in continuously evolving highly authentic socialisation experiences of relations that are temporarily informed (Pittaway et al., 2023). Engaged communities, such as the entrepreneurial ecosystem (Isenberg, 2010), have the potential to generate and sustain the entrepreneurial mindset and promote student start-up entry through reciprocal transactions that help reinforce community norms (Donaldson et al., 2023).

This social infrastructure provides the participative scaffolding that guides entrepreneurial learning. Ongoing entrepreneurial experiences allow students to establish an entrepreneurial

identity that permits transformation and progression towards full participation in the entrepreneurial ecosystem (Lave & Wenger, 1991). Within the formal curriculum and as participants in the extra-curricular activity students work towards full participation in the entrepreneurship community of practice developing and evolving through interacting with others. Students participate in a dynamic conversation through which a shared understanding is developed (Donaldson, 2021). Thus, complex and everchanging practices as is entrepreneurship, demand creative and collaborative agency to succeed (Ramoglou et al., 2023).

LPP for the students of EDEM occurs as they are provided opportunities to extract competences from structured valued practices, power relations, and events that occur within the ecosystem (Lave & Wenger, 1991). Access to the entrepreneurial community and increasingly more meaningful contribution, i.e., from EDEM to LZA, and from LZA to Angels, is brokered through EDEM Emprende and ensures that students gain a beneficial meta outlook as to why the community exists that can help fuel motivation from the learning possibilities afforded (Donaldson et al., 2021). This helps make their entrepreneurial identity more salient as they transition from a predominantly student-focused role to one which is entrepreneurship centred (Nielsen & Gartner, 2017).

The student is decentred as knowledge is not withheld by the university professor ready for deposit however, instead it is believed that, participating in practice is a condition for the effectiveness of learning (Lave & Wenger, 1991). Entrepreneurial learners at the periphery not only have a meta overview in the form of a lookout post but simultaneously are extracting knowledge and immersing themselves in the entrepreneurial culture.

Operating on the periphery is beneficial for students as it can stimulate creativity and resourcefulness through the provision of opportunities for reflective practice and vicarious learning in the idea spaces that emerge (Donaldson & Villagrasa, 2023; Rae, 2017). Idea spaces at the periphery meet the relevant phases of the socialisation process the student is located as it differs from the core as at the periphery they are not (or shouldn't be) as time pressurised and less likely to experience higher levels of negative affect (Donaldson, Neck, et al., 2024). Furthermore, the intensity of distractions, the complexity of tasks, and the quantity of decisions needing to be made will be reduced which if high can hinder learning experiences (Rossano et al., 2016). This does not however lessen their significance towards ecosystem participation. In this way students are afforded the possibility to generate connections and associations at both the individual and community level enhancing learning. Actively reflecting on experiences allows students to gain an inspired purpose (Galloway et al., 2019).

Conclusions and key takeaways for entrepreneurship educators

Learning is socio-culturally situated (Vygotsky, 1978). Learning in an entrepreneurial ecosystem environment is very different from that of the traditional university. Entrepreneurial universities instead seek to promote genuine participation in practice wherein stronger entrepreneurial identities can be formed.

In entrepreneurial universities embedded in entrepreneurial ecosystems generalised competencies from traditional schooling can therefore be transferred into authentic situation specific experiences (Tynjälä et al., 2003). Opportunity for informal learning within extra-curricular activities affords an implicit and highly contextualised means for students to benefit from a greater richness to their entrepreneurial education permitting independent transactions with other community members. Hence, the gap becomes lessened between what we learn and how we apply, or in other words from education to the domain-specific industry. In particular, this approach of integrated an holistic model of entrepreneurship education has a distinct advantage in that it is based upon, and has the capacity to simulate, authenticity through actual use of relevant skills.

Although the entrepreneurial ecosystem provides a highly conducive environment for a socially situated teaching philosophy (Roundy, 2017), we can draw out key elements that are of interest for

all practitioners irrespective of geography. Socio-cultural activity and evolution of participation has been neatly discussed in literature as operating across three different, however interrelated, planes of focus that through active promotion can help enhance the opportunities we provide students to become more entrepreneurial and can also be used for analysis towards the value our pedagogy affords.

These three planes are institutional, interpersonal, and personal (Rogoff, 1995) can be seen in Figure 1. Firstly, apprenticeship involves individuals actively participating in culturally or institutionally derived organised activities with ambition to accommodate the transitional journey from inexperience towards mature participation in the valued practices within the community. This process of socialisation was facilitated in EDEM through the creation of active links between the student at the periphery and entrepreneurship professionals located more centrally. This form of outreach held purpose; it was not designed to provide a superficial connection between both parties however instead to be mutually serving. Students could observe those practices and processes of most value within the community and embody these as they carried out their own work progressing their own journeys toward the centre.

A second plane, guides participation, reflective of engaged interpersonal interactions. Processes that enable communication and coordination whilst participating in cultural practices permit the continuous generation of valuable insights. Participation refers to both observation and hands on experiences involving proximal guidance, as in side-by-side support, and more distal elements where co-presence need not be a requirement. As student gain more knowledge and experience of the entrepreneurship process through actively engaging with the community they begin to reciprocate with their own thoughts and inputs ultimately creating a bi-directional flow of value. Students are being affected by the situated learning processes through accumulation of relevant skills and knowledge however, concomitantly affecting these via increased participation.

Finally, the strategic guidance received created an opportunity for students to benefit from participatory appropriation. Participatory appropriation depicts how an individual undergoes personal change and develops allowing them to successfully confront future involvement in related activities. Students were able to demonstrate what they had learnt and how they had developed in this instance through training sessions supplemented with workshops in EDEM Empreunde.

To close we also offer several practical-based recommendations based on our own experiences and feedback received from students. First, students have to feel as if they are a valued part of an entrepreneurial ecosystem. To help achieve this you can schedule visits to the various domains of practice to allow students to gain familiarity with the core components of entrepreneurship whilst also making the students visible to the associated communities of practice. Alternatively, you may wish to get staff from the start-up accelerator to hold introductory sessions with students so that they can share their experiences and advice related to the common pitfalls they see in their communities. Another option to connect students with entrepreneurship practitioners is to lead open innovation challenges where specific subjects in the university degree can be linked with start-ups in the accelerator to collaboratively solve the major problems that the start-ups are facing.

Second, when launching extra-curricular entrepreneurship activities, it is important to ensure that they are aligned and coordinated with the university's careers department. This requires being cognisant that the salient role for a student is likely to be being a student. Therefore, timetable issues can appear given other commitments and obligations. As a potential solution, you can, for example, instead of duplicating a session, discover if it is possible to record it in order for it to be shared on a collaborative platform to be accessed asynchronously.

Third, to maintain community engagement create online collaborative platforms through the use of social media and messaging services such as Slack or Whatsapp. In-person events such as entrepreneurship dinners and pitches with pizza are also a valuable way to generate cohesion and trusts within groups. This way you can build both virtual and physical communities of learning.

Fourth, entrepreneurial action is distributed. It is important to rely on a range of partners to support the entrepreneurial journeys of students. For example, in EDEM Emprende we collaborate with other universities, entrepreneurial ecosystem events and past students who have completed the entrepreneurship journey at MdE. You can create a network of mentors that can help deliver sessions and assess student projects. Furthermore, through connecting with other regional incubators and accelerators profile gaps can be filled. For example, EDEM Emprende connects with more technical profiles of the University Polytechnic of Valencia. This can be done within the same university with other extracurricular activities and clubs. For instance, finance related sessions in EDEM Emprende are delivered in coordination with EDEM's investment team.

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