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# Cultivating the Entrepreneurial Mindset: Integrating Theory and Practice in Curricula across University Departments

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*Abstract: In today's dynamic world, it can be strenuous to equip students with the skills and knowledge required for the development of entrepreneurial mindset. Thriving as entrepreneurs is the recent trend that Algeria is incorporating in higher education to uplift the entrepreneurial ecosystem and prepare students to be engaged in the job market and business landscape. The study aims at exploring the integration of theory and practice of entrepreneurship in the higher education curricula for the cultivation of university students' mindset. It also aims at suggesting some strategies for the inclusion of entrepreneurship across university departments and listing some ways to involve stakeholders in the entrepreneurial ecosystem. To conduct the study, surveys were used to explore the stakeholders' attitudes and identify how entrepreneurship can better be embraced. In addition, using questionnaires and interviews contributed to suggesting some ways of improvement to reinforce the entrepreneurial ecosystem. Results divulged that experiential learning should be promoted as a first step for the integration of entrepreneurship. A robust theoretical framework should be elaborated along with some practical opportunities in the form of entrepreneurial projects, internships and mentorship programs. The study advocates a holistic approach that helps preparing students for future job market and promotes further evolution of the entrepreneurial ecosystem and adaptation with the changing and dynamic business landscapes.*

**Keywords:** *Ecosystem, Experiential Learning, Higher Education, Job Market, Stakeholders.*

## 1. INTRODUCTION

There is a growing interest in the concept of entrepreneurship due to the emergence of technological advances and urging need for job market evolution. Along with this shift, many academic institutions, particularly universities across the globe, are creating programs that foster entrepreneurship in addition to adjusting their curricula to comprise entrepreneurial



principles and develop entrepreneurial mindsets. Empowering students with the versatile skills required for today's dynamic world becomes a necessity that the Algerian university should carefully consider by the inclusion of entrepreneurship in its curricula.

Through the inclusion of entrepreneurship in education, students will be equipped with skills, such as critical thinking, problem-solving and creativity. This infers that universities should evolve a proactive approach which can help students encounter the problems and deal with the complexities of the modern job market. Practical experiences can be gained once universities create incubators and include initiatives as mentorship opportunities and startup projects. As students will be equipped with entrepreneurial skills, it would be easier for them to start their own businesses once they graduate which implies that integrating entrepreneurship in the curriculum would not contribute to only achieving short-term goals but long-term ones as well.

## **2. RELATED WORKS**

The relationship between university and industry was first rooted in the vocational education that the European universities initiated in the medieval times, that is, around the twelfth century. This was because of the urging need for legal and medical services as a result of overpopulation, craftsmanship and trade (Dabic *et al.*, 2016). As for Bull and Willard (1993), the concept of entrepreneurship was seen as the case of those who could not attend university and revert to the practice of business startups (as cited in Morris *et al.*, 2013). A remarkable growth in the field of entrepreneurship can be observed in the acceptance of research related to entrepreneurship in areas of marketing, finance, management, psychology and sociology, and the growing interest in the publication of research papers and works in related journals. Business educators and professionals have now changed the view that entrepreneurs are born rather than made. The concept is being taught across the globe and many universities are developing entrepreneurship programs and designing curricula.

The original concept of ecosystem is derived from natural sciences, the theoretical framework inspired from the business ecosystem of Moore and leading to place the concept of ecosystem as the economic community fostered by some individuals and organizations interacting with one another (Fetters *et al.*, 2010). There was a radical change in terms of understanding the concept of entrepreneurship as universities are now developing cross-disciplinary programs on entrepreneurship. In the past, entrepreneurship was seen as the monetary income that a certain university receives from external business activities on the basis of scientific discoveries. The latter was altered into comprising partnership arrangements along with housing arrangements, campuses or education providers. There is an increasing awareness that additional services can be provided to the society by universities as being the source of dissemination and land for leisure. Not only this, but the way of teaching entrepreneurship was also altered as it was taught in business schools only, but now it is embedded in many departments. According to Hytti (2010), entrepreneurship highly focuses on the close collaboration between government, academia and industry, in addition to higher education which contributes to the development of the economy and society (as cited in Ferreira *et al.*, 2018). Therefore, entrepreneurship comprises several domains as illustrated in table 1.

Table1: Some Domain Areas in Entrepreneurship (Morris *et al.*, 2013, p. 5).

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● Traits, characteristics and cognitive styles of entrepreneurs	● Entrepreneurial strategy
● Affect, passion, optimism and the entrepreneur	● Public policy and entrepreneurship
● The entrepreneurial process	● Informal sector/base of the pyramid and entrepreneurship
● New venture creation	● Entrepreneurial marketing
● Opportunity recognition and assessment	● Ethics and entrepreneurship
● Entrepreneurial teams	● Technology commercialization
● Small business growth	● Immigrant entrepreneurship
● Family business management	● Product, service, process and business model innovation
● Gender, ethnicity and entrepreneurship	● Leveraging, resourcing, bootstrapping, bricolage and effectuation
● Entrepreneurial orientation	● Negotiation and deal structuring
● Entrepreneurial finance	● The entrepreneurial mindset
● Alliances and networks	● Corporate entrepreneurship
● Entrepreneurial identity	● Economic development and entrepreneurship
● Social entrepreneurship	● Franchising
● Sustainability and entrepreneurship	● Failure and entrepreneurship
● Serial entrepreneurship	● Harvesting and exit strategies
● Global entrepreneurship	

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According to Fayolle and Redford (2014),

The modern era acknowledges the importance of a ‘Third Mission’: the economic and social valorization of knowledge produced by researchers within universities, creating the need for strategies, structures and mechanisms within universities that facilitate and intensify knowledge transfer to the private sector, via various avenues: patents, licensing, and facilitating academic spin-offs and start-ups. (p. 2)

Innovation, economic growth and creativity are mainly promoted by the entrepreneurial university which is considered as the driving force for them. The entrepreneurial university forms a natural incubator that provides support for both teachers and students for ventures initiation. However, entrepreneurship is often exhorted by policymakers thought there is ambiguity in literature on what an entrepreneurial university implies. As for Shane (2004) and Alexander *et al.* (2015), the term entrepreneurial university infers entrepreneurial activities with commercialization of university research (as cited in Adesola and Datta, 2020). Abdelli *et al.* (2023) mention that after Nigeria, Egypt, South Africa and Kenya, Algeria was listed in the fifth rank in terms of technological startups. Nonetheless, among the challenges faced by startup creators in Algeria, the following can be listed: Funding, lack of experience, the market conditions and size, and the difficulty of finding a supporting team.

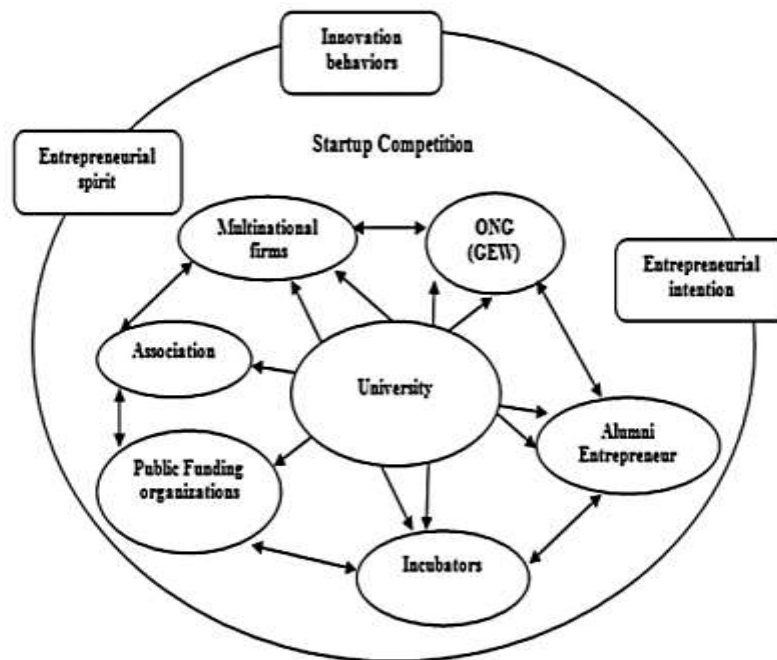


Fig. 1 the Startup Competition within the Entrepreneurial Ecosystem (Dif *Et Al.*, 2019, P. 142).

The inclusion of entrepreneurship in higher education was a step taken by the Ministry of Higher Education and Scientific Research as an attempt to promote innovation and entrepreneurial ecosystem at Algerian universities by fostering competition among startups (Dif *et al.*, 2019).

A total of 84 centers for entrepreneurship across many Algerian universities were launched by the Ministry of Higher Education and Scientific Research and the Ministry of Knowledge economy, startups and micro-enterprises. The national conference on entrepreneurship which was accordingly organized reinforced the application of entrepreneur student label and certificate as well. The latter would offer opportunities to engage graduates in the job market and promote entrepreneurship in tertiary education (Ministry of Higher Education and Scientific Research, 2023). According to the Hague Academy for Local Governance (2024), a network of institutions and policies was created to promote entrepreneurship in Algeria. As a way to evolve the country's economy, policymakers encourage the culture of startups. One of the centers that support startups is the one called A-Venture which is a public innovation center assisting Algerian youth and promoting startups, investors and incubators. In addition to this, there was a collaboration between six banks and the Ministry of Startups to support the Algerian Startup Fund (ASF). Though the efforts made to encourage entrepreneurship and the culture of startups, there are still some bureaucratic regulations and administrative difficulties that induce hurdles to entrepreneurs and startup creators.



### **3. METHODOLOGY**

#### **To Delve into the Study, Some Research Questions Were Elaborated as Follows:**

1. What are the university teachers and students' attitudes towards the integration of theory and practice of entrepreneurship in higher education curricula?
2. What are the strategies that can be employed to foster entrepreneurship in tertiary education and help stakeholders embrace it?

#### **It Was Speculated in Accordance with the Research Questions that:**

1. University teachers as well as students hold positive attitudes towards the integration of theory and practice of entrepreneurship in higher education curricula.
2. The elaboration of a robust theoretical framework along with practical opportunities (as in the form of mentorship programs and internships), in addition to the implementation of experiential learning at university can foster entrepreneurship and help stakeholders embrace it.

The present research is grounded on mixed-methods approach employing both quantitative and qualitative research methods to explore the stakeholders' attitudes and suggest some ways of improvements for the inclusion of entrepreneurship in education. Diverse tools were employed to collect data as questionnaires and interviews. The questionnaire was translated into Arabic and French, in addition to the main version (*i.e.*, English), so that the participants would choose the language they master. Therefore, it was administered electronically via Google Form where consent was sought prior to obtaining responses from the participants. The research tool included three main sections in which the first one was allotted to the participants' demographics, while the second section was allocated for the integration of entrepreneurship in tertiary education curricula. The last section was devoted to their views on experiential learning and strategies for further entrepreneurship support and improvement. The questions included in the questionnaire varied, including close-ended, open-ended and Likert questions. Non-probability sampling procedures were used to select both teachers and students across diverse universities in Algeria. Students were interviewed online to identify their views on the inclusion of entrepreneurship in higher education curricula and seek some ways of improvements to help future startup creators better understand entrepreneurship theoretically and practically. Henceforth, both qualitative and quantitative data were obtained from the research tools (questionnaires and interviews). The interview centered on getting a background information on the university students, in addition to identifying their attitudes towards the inclusion of entrepreneurship as a subject to be taught and included in the university curricula. The interview was ended with some questions that help finding and listing some strategies that might contribute to better embracing entrepreneurship and help stakeholders, whether teachers or students, understand and apply entrepreneurship in reality, especially in the form of startups creation.



#### 4. RESULTS AND DISCUSSION

The study involved a total of 18 university teachers belonging to different departments at the level of diverse universities as University of Batna, Algiers 1, Setif 1, Oran, Béjaïa, Laghouat and Ouargla. The participants teach various subjects as English, Mathematics, Physics, Management, Law and Computing. The highest number of the participants (N= 15) had a range of 5-10 years of teaching experience. Out of them, only 2 teachers assumed that they taught a subject in relation to entrepreneurship. Almost all teachers (N=17) asserted that entrepreneurship can be taught at the level of all faculties in the Algerian universities. They claimed that the latter would help educators as well as graduate students create their startups and foster entrepreneurship using both theoretical and practical ways. A total of 16 teachers stressed that the creation of startups as a graduation project remains a failure as entrepreneurship is not taught as a part of the university curricula making its application on real life a mere temporary idea that loses its importance and popularity as the students graduate. This idea was also mentioned by Neck et al. (2014).

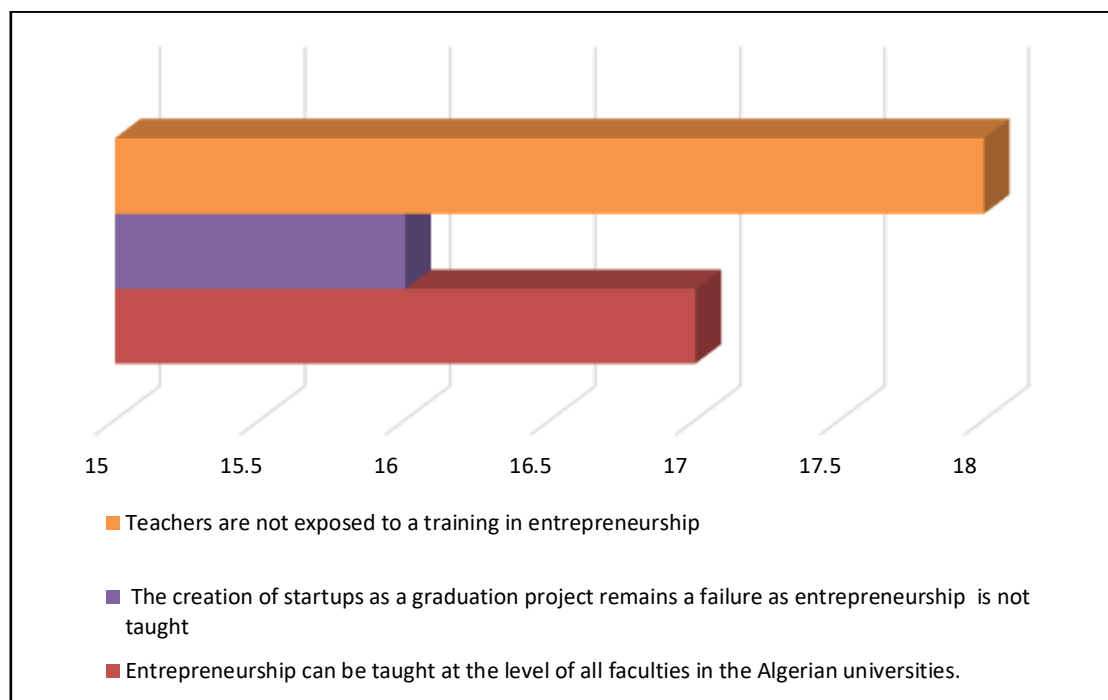


Fig. 2 Frequencies in relation to the responses provided by university teachers on entrepreneurship inclusion in the university curricula.

Mentorship is not reinforced as entrepreneurship is not being taught, and teachers were and are not exposed to a training in entrepreneurship as mentioned by all teachers (N=18). None of the teachers collaborated to incorporate entrepreneurial concepts or supervised a graduation project in the form of a startup. The view was also supported by Morris and Liguori (2016) that entrepreneurship is neither taught nor teachers are trained in this field. The reason behind the latter was that the supervision of a startup as a student's graduation project is surrounded by

many difficulties as the financial problems, administrative hurdles and lack of mentorship training in entrepreneurship as stated by 16 teachers. To better embrace entrepreneurship across university departments, 17 teachers asserted that a robust theoretical framework should be elaborated along with some practical opportunities given for both teachers and students in the form of workshops, internships, entrepreneurial projects and mentorship programs. The main concept that was emphasized by all university teachers (N= 18) is the one called experiential learning. The concept was supported by the teachers to offer opportunities for the practice of entrepreneurship and help evolving courses in entrepreneurship to be included in tertiary education curricula. Experiential learning, according to 18 teachers, would help both educators and learners better understand entrepreneurship and motivate them to create startups which promotes entrepreneurship and the Algerian entrepreneurial ecosystem. Not only this, but they stressed that the students' entrepreneurial mindset would be fostered, which was similarly alluded to by Hyams-Ssekasi and Caldwell (2018).

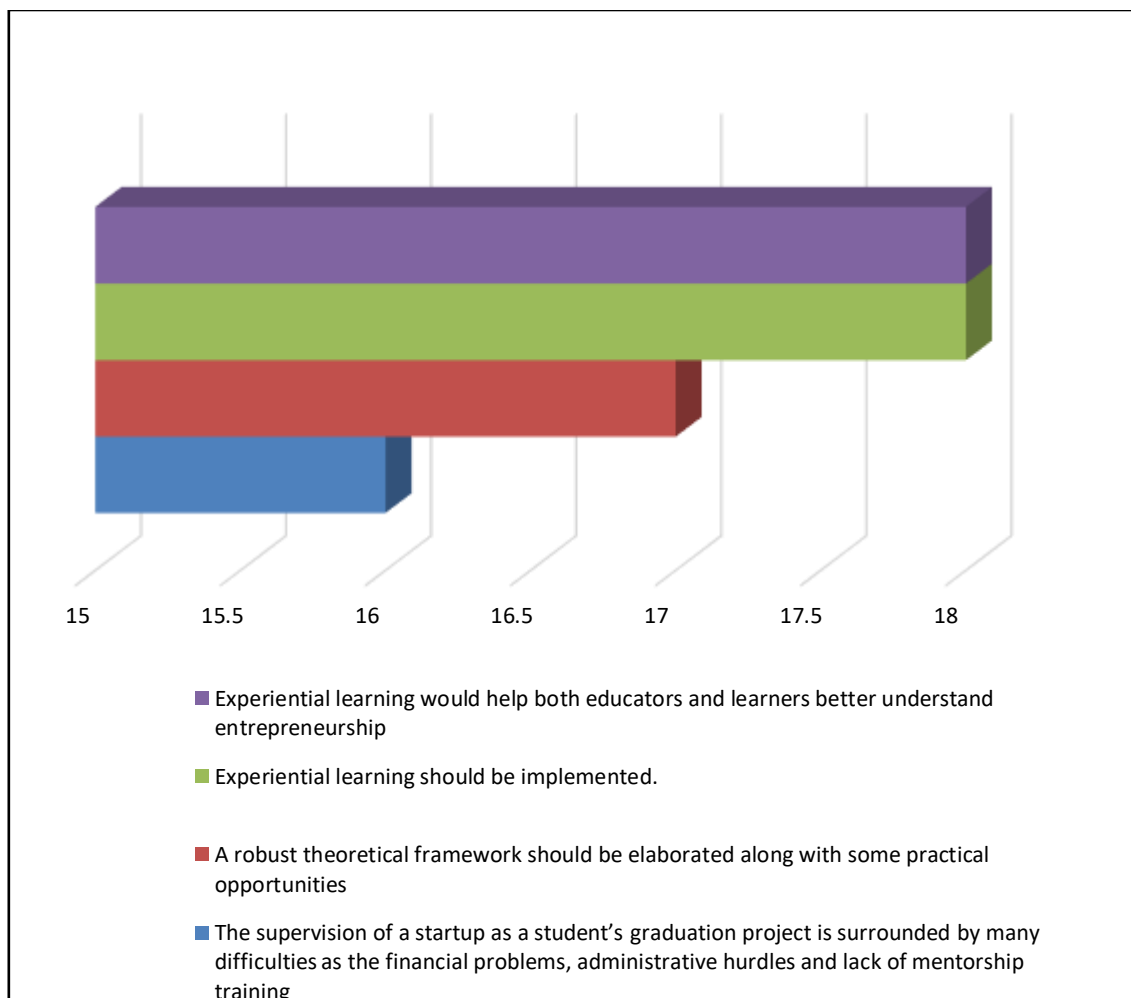


Fig. 3 Frequencies in relation to the responses provided by university teachers on experiential learning.

Interviews conducted with 5 university students who belong to different gender categories (*viz.*, 2 males and 3 females) and diverse age categories (*i.e.*, 4 students aged 20- 22 and 1 student aged 23- 25 years old). The students are enrolled in diverse departments across different universities and study different subjects as English, Computing, Economy and Management, Physics and Sociology. All students had never participated in any activities in relation to entrepreneurship and stressed that there were no efforts made by their university to integrate entrepreneurship in the curriculum. However, all students (N=5) supported the inclusion of entrepreneurship in the curricula of higher education in the future. They argued that the inclusion of entrepreneurship in its theoretical and practical shape would help them become successful entrepreneurs and develop their skills to create startups and be engaged in future job market.

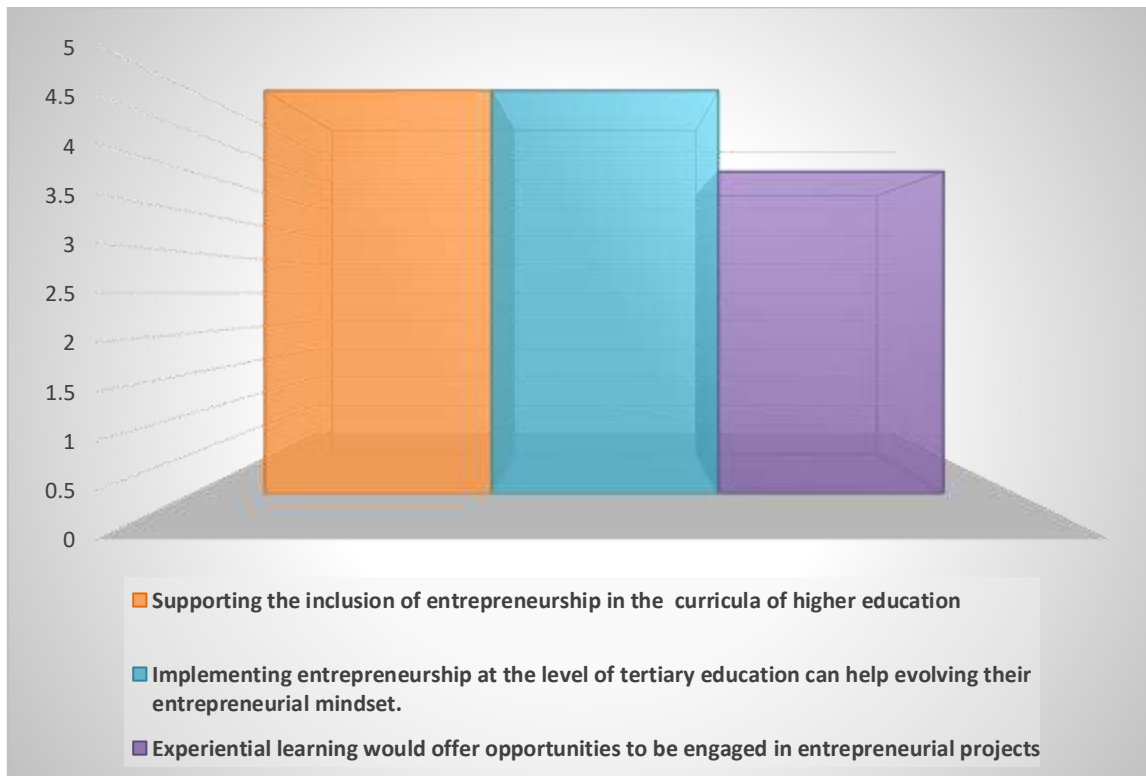


Fig. 4 Frequencies in accordance with the university students' responses on entrepreneurship and experiential learning.

All of them (N=5) agreed with the idea that implementing entrepreneurship at the level of tertiary education can help evolving their entrepreneurial mindset. The view was highly fostered in the work of Bosman and Fernhaber (2021). After explaining what experiential learning implies, 4 students emphasized that experiential learning would offer opportunities to be engaged in entrepreneurial projects and practical experiences would also be provided to further understand entrepreneurship. Larios-Hernandez *et al.* (2022) also shared the same views with regards to the critical role that experiential learning plays in the field of entrepreneurship. All students (N=5) recommended exposing stakeholders, teachers and students, to trainings





with regards to entrepreneurship and emphasized that the success of startups creation as graduation projects can be guaranteed if entrepreneurship is included in the curricula of all specialties at university.

## **5. CONCLUSION**

The inclusion of entrepreneurship in tertiary education can boost the students' abilities and help preparing them for future challenges arising from the fast changing world. Students would be able to thrive in any professional endeavor due to the entrepreneurial ventures they would be involved in at university. By incorporating entrepreneurship, innovation, creativity and adaptability would be fostered. The study advocated the inclusion of entrepreneurship through theory and practice to be included in the curricula as a way to cultivate entrepreneurial mindsets and promote the culture business and job market. Henceforth, efforts should be made by policymakers, educators, business partners and administrators to promote entrepreneurship at university, especially with the rise of startups creation. The success of the latter cannot be guaranteed if the concept of entrepreneurship is not taught theoretically and practically implementing experiential learning as a first step for entrepreneurship integration.

On the basis of the research findings, the following recommendations can be listed:

1. Developing programs should be the first step initiated by the Ministry of Higher Education and Scientific Research to bring together university departments to work on entrepreneurial projects.
2. Curriculum can be supported by theories related to the field of entrepreneurship, such as Design Thinking, Lean Startup and Innovation Theory.
3. Students might be given opportunities to test their projects prior to launching them through hands-on projects or project-based learning.
4. Cooperation should be maintained between education and industry to support the students' entrepreneurial projects.
5. Students' ventures can further be scaffolded by the creation of incubators and accelerators that offer resources, tools and funding.
6. Mentorship should be reinforced by exposing university teachers to trainings in entrepreneurship and startup creation. Training programs should be developed to help teachers include entrepreneurship in their class and incorporate entrepreneurial thinking in their teaching process.
7. Study abroad programs can be evolved to encourage students' creativity and innovation in entrepreneurship.
8. To further foster entrepreneurial mindset, contact can be maintained between alumni, industry professionals and university students. Those can help students successfully create and manage their entrepreneurial projects.

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