

Research and Trends in Entrepreneurship Education

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Entrepreneurship education has become increasingly crucial in today's fast-paced and ever-evolving global economy. With the rise of digital technology and the need for innovation, there has been a growing demand for individuals who possess entrepreneurial skills and mindsets. This Special Issue of *Education Sciences*, "Research and Trends in Entrepreneurship Education", aims to provide a comprehensive overview of the current state of entrepreneurship education and the challenges it faces in the digital age.

Education in entrepreneurship has been studied by several authors [1–3], focusing on theory, practice and observation of what entrepreneurs do and how they learn [4,5]. The importance of entrepreneurship education and training is highlighted in many works presented in the literature at an international level [6–8].

Entrepreneurial education has become more common in higher education institutions [9] but is less spread at other levels of education. Currently, entrepreneurial education represents a fundamental aspect of both industrial and educational policy in many countries [10]. The issue of entrepreneurship in education is also a primary concern for the European Commission [11], and three approaches in Entrepreneurial education were identified: "Teaching 'about' entrepreneurship means a content-laden and theoretical approach aiming to give a general understanding of the phenomenon. It is the most common approach in higher education institutions. Teaching "for" entrepreneurship means an occupationally oriented approach aiming at giving budding entrepreneurs the requisite knowledge and skills. Teaching "through" means a process-based and often experiential approach where students go through an actual entrepreneurial learning process [12]. This approach often leans on the wider definition of entrepreneurship and can be integrated into other subjects in general education, connecting entrepreneurial characteristics, processes, and experiences to the core subject.

Besides the principal aim of entrepreneurial education being to enhance entrepreneurial skills [6], it also has the capacity to increase deep learning and engagement, joy, motivation confidence and feelings of relevancy in individuals, but also it has an effect on job creation, economic success, renewal and innovation for individuals, organizations and the whole of society [7].

For the future of entrepreneurship education, it is important that the students have learning experiences with live projects where they collaborate with real businesspeople, and this will open new opportunities for researchers to study the contexts of education, the methodologies of learning, the relationship between education and the real world.

This book is a collection of 10 articles that show the educational and social impact of different teaching contexts and highlight innovative programs, practices and projects developed in higher education and basic education. The articles published in this book offer insights into entrepreneurial skills, entrepreneurial culture, entrepreneurial schools, teaching methods, programs and effectiveness and provide a glimpse of the latest trends in entrepreneurial education.

The publication of this book is a significant contribution to the advancement of scientific research in the field of entrepreneurship education. By sharing evidence-based



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practices and programs, this book will help researchers, educators, and policymakers better understand the impact of entrepreneurship education and how to create more effective and impactful initiatives.

In terms of contributions collected regarding the Research and Trends in Entrepreneurship Education theme, the SI uncovered some interesting findings.

The first contribution, Jacinto Jardim's contribution, "Entrepreneurial Skills to Be Successful in the Global and Digital World: Proposal for a Frame of Reference for Entrepreneurial Education" [1], aims to describe and systematize essential entrepreneurial skills, considering globalization and digital transformation. A tripartite entrepreneurial skills model is proposed through documental analysis and critical reflection, integrating creativity, innovation, initiative, self-efficacy, resilience, strategic planning, problem-solving, transformational leadership, and communication. In the next stage, an entrepreneurial skills scale will be created and validated based on this model.

In the second contribution, "Discovering Entrepreneurship Competencies through Problem-Based Learning in Higher Education Students" [2], Maria José Sousa and Joana Costa explore the competencies developed by students using the problem-based learning (PBL) methodology in higher education courses. A document analysis and a survey of 76 students were employed to identify the competencies. The results indicate that students perceive PBL as essential for their advancement in university courses, developing key competencies.

The third contribution, "Towards a Global Entrepreneurial Culture: A Systematic Review of the Effectiveness of Entrepreneurship Education Programs" [4], by Jacinto Jardim, Ana Bártole, and Andreia Pinho, provides a systematic synthesis of entrepreneurship education programs (EEPs), examining their characteristics and effectiveness. Twenty-nine articles from Scopus, Web of Science, ProQuest, and ERIC databases were included. The results show that EEPs effectively promote entrepreneurial skills at all education levels but do not necessarily increase the intention to start a business.

Isabel Souto, Elisabeth Brito, and Anabela Pereira's contribution, "Self-Efficacy, Resilience, and Distress: Challenges in Education for Sustainable Entrepreneurship in a Health Context" [13], investigates the relationship between organizational structures, processes, and individual well-being factors in healthcare settings. An empirical study involving 333 formal caregivers used the Kessler Psychological Distress Scale (K10), Brief Resilient Coping Scale (BRCS), and Copenhagen Psychosocial Questionnaire (COPSOQ III, medium version). The results reveal that resilience, distress, role clarity, control over working time, and job insecurity predispose self-efficacy factors, which is crucial for creating an environment conducive to intrapreneurship and well-being. Cause-related marketing is proposed as a pedagogical tool for fostering an entrepreneurial mindset within the organization.

In the contribution by Mette Ranta, Milla Kruskopf, Marilla Kortessalmi, Panu Kalmi, and Kirsti Lonka, "Entrepreneurship as a Neglected Pitfall in Future Finnish Teachers' Readiness to Teach 21st Century Competencies and Financial Literacy: Expectancies, Values, and Capability" [14], the study examines future Finnish teachers' readiness to teach 21st-century competencies, including entrepreneurship. Using survey data, the researchers found that future teachers expressed high interest in all competencies but reported the least self-efficacy and highest cost in teaching ICT, working life, and entrepreneurship competencies. They suggest supporting future teachers' readiness through phenomenon-based school subject collaboration, formal teacher training, and digital applications.

Francisco Banha, Adão Flores, and Luís Serra Coelho's contribution, "NUTS III as Decision-Making Vehicles for Diffusion and Implementation of Education for Entrepreneurship Programmes in the European Union: Some Lessons from the Portuguese Case" [15], explores how entrepreneurship education initiatives can be successfully spread and implemented during compulsory school. The authors propose that the scale of the NUTS III and its governance model/characteristics are ideal for carrying out entrepreneurship education initiatives in the EU. They base their argument on the successful case study of Portugal's Intermunicipal Community of Viseu Dão-Lafões.

João M. Lopes, Márcio Oliveira, José Oliveira, Marlene Sousa, Tânia Santos, and Sofia Gomes' contribution, "Determinants of the Entrepreneurial Influence on Academic Entrepreneurship—Lessons Learned from Higher Education Students in Portugal" [16], investigates the determinants that influence the interest of Portuguese higher education students in becoming entrepreneurs. Using a quantitative methodology and structural equation models, the study found that students' perceptions of business skills, business growth skills, strategy, and successful business are critical factors in their entrepreneurial orientation. The research contributes to the literature on students' perception of becoming entrepreneurs and offers practical suggestions for promoting entrepreneurship within university boundaries.

In the contribution by Mariana Pita, Joana Costa, and António Carrizo Moreira, "The Effect of University Missions on Entrepreneurial Initiative across Multiple Entrepreneurial Ecosystems: Evidence from Europe" [17], the authors investigate how entrepreneurial universities impact entrepreneurial initiatives across different environments. Using data from the Global Entrepreneurship Monitor, they analyzed 18 European countries in 2017. The results show that the importance of entrepreneurial universities increases in fragile entrepreneurial ecosystems while it decreases and negatively affects entrepreneurial initiatives in more robust entrepreneurial ecosystems. The study suggests that the impact of universities is expanded as their missions evolve and highlights the importance of considering the entrepreneurial ecosystem and individual drive when implementing entrepreneurship in universities.

Francisco Banha, Luís Serra Coelho, and Adão Flores' contribution, "Entrepreneurship Education: A Systematic Literature Review and Identification of an Existing Gap in the Field" [18], examines the decision-making processes regarding the implementation of entrepreneurship education programs in schools and the introduction of this topic in the policy-making process. Their systematic literature review found a gap in academic knowledge related to these decision processes. The reviewed articles indicate that entrepreneurship is essential to countries' progress and evolution, entrepreneurship education is central to fostering a more entrepreneurial youth, and successful implementation of regulatory institutions' recommendations relies on political commitment and implementation capacities.

Finally, in the tenth contribution, "Entrepreneurial Intention Before and during COVID-19—A Case Study on Portuguese University Students" [19], by João M. Lopes, Sofia Gomes, Tânia Santos, Márcio Oliveira, and José Oliveira, the authors compare the entrepreneurial intention of university students before and during the COVID-19 pandemic. The study found that despite macroeconomic changes resulting from the pandemic, entrepreneurial activity did not decrease; students were less interested in being employed by others and more attracted to being entrepreneurs. There was also growing agreement with society's values on entrepreneurship and a more remarkable aptitude for entrepreneurial activity. The research contributes to theory and practice by presenting conclusions that contrast with other studies conducted in disaster situations, offering insights for developing strategies to promote entrepreneurship within higher education institutions and public policies.

In conclusion, this book presents a diverse and insightful collection of contributions addressing various aspects of entrepreneurship (EE) education and its role in promoting entrepreneurial skills, culture, and innovation in today's digital age. The authors shared their original research and analysis articles on entrepreneurial skills, entrepreneurial culture, entrepreneurial schools, teaching methods, EE programs, and EE effectiveness. The studies presented here contribute to advancing scientific research in entrepreneurship education and offer valuable information and recommendations for researchers, educators, policymakers, and stakeholders in promoting entrepreneurship in various educational contexts. We hope this issue will inspire more research and collaboration in pursuing a more entrepreneurial society that effectively addresses the challenges and opportunities for all, particularly for young entrepreneurs.

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