











# Pioneering the Path to Success: An Analysis of the Challenges in Entrepreneurial Education

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**Abstract.** Prior research contends that students who receive entrepreneurial education are more likely to launch their enterprises. Early interventions are lauded to expand students' options and enable them to build on their knowledge. However, implementing entrepreneurial education in secondary schools is difficult and fraught with challenges. Educators struggle with student engagement, relevant content, and the absence of intuitive tools. Prior research suggests that the challenges centre on students' attitudes, a paucity of pedagogical resources to meet the specific needs of educators and their students, and systems-related issues. However, it is unclear whether these experiences are uniform in secondary schools across Europe. To uncover the challenges and address potential issues, we conducted a qualitative analysis comprising 29 secondary school teachers in Ireland, Spain, and Turkey. Structured interviews and focus groups were conducted to elicit user experiences, insights and real-world stories. Thematic analysis was used to identify the common challenges faced by all participants. Our analysis revealed that systems limitations and pedagogical challenges were the most significant obstacles, followed by students' attitudes towards entrepreneurial education.

**Keywords:** Entrepreneurs · entrepreneurial education · secondary schools · design thinking · teacher training · entrepreneurship programmes

## 1 Introduction

Entrepreneurial education is important as it emphasises developing skills and traits that enable the exploitation of opportunities. A growing body of studies and impact assessments explore the link between early exposure to entrepreneurial skills, values and

being entrepreneurial in later life [1–4]. Equipping students with entrepreneurial skills is lauded to impact their lifelong development of non-cognitive skills such as teamwork, self-esteem and self-confidence [5–7] and increase their prospects [8–12].

Despite the significance of entrepreneurial education, the literature on this subject has largely focused on higher education, ignoring the challenges faced in secondary school settings [13, 14]. Researchers have confirmed a growing demand for relevant resources in secondary school [15]. However, several studies have found that teachers find it difficult to teach entrepreneurial programmes and often struggle to equip their students with relevant skills [16–18]. Prior research also suggests schools lack appropriate pedagogical models and theoretical materials [19]. Students' lack of interest, limited funding and insufficient teacher's training also hamper entrepreneurial education in secondary schools [20–22]. It is evident that there are many issues that exist. However, despite its importance, there is a lack of empirical studies examining these challenges, and this deficit must be addressed.

Therefore, this study aims to uncover and analyse the factors that impede entrepreneurial education in the secondary school context. A state-of-the-art analysis was conducted to isolate relevant themes and create an interview schedule. Data was collected and analysed using structured interviews and focus group techniques to identify challenges to entrepreneurial education. From this analysis, practical considerations for faculty and administrators involved in developing secondary school entrepreneurial education programmes to overcome these challenges can be developed.

The paper is structured as follows. The following section analyses and presents the extant literature focusing on perceived challenges in entrepreneurial education. Subsequently, the scientific methodology used in this study is described, followed by the key findings and discussion. Limitations and future research avenues are also suggested.

## 2 Literature Review

An analysis of the extant literature reveals that the challenges to effective entrepreneurial education are multifaceted and heterogeneous. The state of the art provides overarching evidence to suggest entrepreneurial education is complex and fraught with challenges. Several studies identify issues that should be in place to enable good practices in this domain. While it is apparent that many factors affect entrepreneurial education three constructs emerge as particularly important and worthy of further examination. These are student attitudes, pedagogical issues and systems constraints. They are discussed in more detail below.

### 2.1 Student Attitudes

Scholars have examined the attitudes of students towards entrepreneurial education, with mixed results. For example, Kolvereid and Isaken [23], found that students who participated in entrepreneurial education programmes held more optimistic views towards entrepreneurship than those who did not. However, other studies found that students often view entrepreneurship education as monotonous or irrelevant to their career objectives [24, 25]. According to Larsen [26], students' attitudes towards entrepreneurial education

are influenced by a lack of awareness and comprehension of entrepreneurship, negative stereotypes, and perceived difficulties in starting and managing a business. Despite these contradictory findings, there is consensus in the literature to conclude that entrepreneurial education can play a significant role in developing students' entrepreneurial skills and attitudes and that it is essential to design effective and engaging programmes that meet the needs and interests of students [27].

## 2.2 Pedagogical Challenges

The literature shows that as a relatively young subject area [36], entrepreneurship education has yet to agree on a universal pedagogical approach regarding consistency of content, training, and resources [37, 38]. Therefore, teachers need help curating content and implementation strategies for entrepreneurial education [39, 40]. Current teaching and learning in this domain primarily focus on the theoretical and conceptual understanding of entrepreneurship. In contrast, scholars advocate that entrepreneurial education should focus on learning “for”, “about”, and “through” entrepreneurship [41, 42]. According to Seikkula [39], entrepreneurial education is not a standard component in pre-service training and ongoing professional development for teachers. Therefore, it is necessary to revise curricula and develop new teaching and learning techniques to equip teachers with the self-efficacy and competence to teach entrepreneurial skills. Curtis et al., [43], assert that entrepreneurial education should embrace a more experimental pedagogy and research practices and adopt an active and experimental approach. This is supported by other scholars who argue that entrepreneurial education must move away from strategies that focus on the “about” and focus more on the “how” [44, 45].

## 2.3 System Constraints

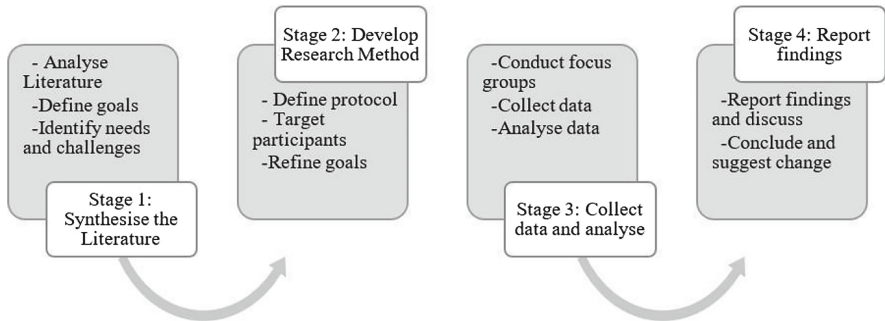
According to Baert & Stevens [28], systems limitations centre on a lack of resources, training, and funding available for entrepreneurship education in secondary schools. Furthermore, a lack of support from parents, teachers, and administrators can also hinder the effectiveness of entrepreneurial education in secondary schools [29]. The success of entrepreneurship education in schools heavily depends on these key stakeholders' involvement and support. Without their assistance, students may not receive the guidance and mentorship necessary to develop the entrepreneurial skills and knowledge required for success. To address these constraints, the extant literature suggests the need to focus on various issues such as funding and organisational support, shared understanding among staff members, effective relationships with local industry, and creating a conducive entrepreneurial environment [30–35]. Therefore, addressing these constraints requires a comprehensive approach involving stakeholders at various levels, from policymakers and administrators to teachers, students, and parents.

Based on this review we conclude that teachers must be equipped with the appropriate tools and techniques to implement good classroom practices that help develop entrepreneurial mindsets and skills [46]. They need access to appropriate models and fit-for-purpose tools to help support students in developing entrepreneurship. Developing entrepreneurs in the classroom requires developing an enterprising environment and approach to learning in which entrepreneurial aptitudes and capabilities can flourish

alongside business acumen and understanding [31]. Current pedagogies are often considered ineffective in matching students' skill expectations with their skill acquisition; therefore, a new approach is needed to focus on interactive and practical learning.

### 3 Research Design

This exploratory study utilised qualitative methods in order to identify the underlying barriers associated with entrepreneurial education in secondary schools. The research process comprised four stages of development as illustrated below (Fig. 1):



**Fig. 1.** Overview of the research process

#### 3.1 Synthesis of the Literature

The first stage involved a comprehensive analysis of current scholarship and debate in entrepreneurial education. Research gaps and problems were generated, prioritised, and refined and focused research goals were developed. The most relevant barriers and challenges were then identified. These constructs were verified with the case organisation to ensure that they aligned well with the specific context and refined accordingly based on feedback from this process.

#### 3.2 Develop Research Method

The second stage in the research process involved developing a research methodology. Due to the exploratory nature of this study, structured interviews and focus groups were utilised to identify the barriers to entrepreneurship education in secondary schools. This approach allowed us to elicit respondents' feelings, beliefs, and attitudes concerning the topic [47]. Focus groups helped us to discover new aspects, as the participants contributed collectively to a greater variety of perspectives which lead to further debate and discussion. The study used a purposive, high-variation sampling strategy [48] comprising experienced and non-experienced secondary school teachers from Ireland, Spain and Turkey. A structured interview schedule was developed based on the findings from the literature. The schedule was pretested and pilot-tested and amendments were made based on the feedback. Interviews and focus groups were conducted in the local language. A profile of the respondents is presented in Table 1.

**Table 1.** Profile of participants

ID	Respondents
Turkey (TR)	16 (55.2%)
Spain (ESP)	8 (27.6%)
Ireland (IE)	5 (17.2%)
<b>Age</b>	
Less than 39	6 (20.7%)
40 to 49	16 (55.2%)
over 50	7 (24.1%)
<b>Gender</b>	
Male	9 (31%)
Female	20 (69%)
<b>Experience</b>	
10 years and below	4 (13.8%)
11 years to 20 years	12 (41.4%)
21 years and above	13 (44.8%)

### 3.3 Collect and Analyse Data

The third stage of the research process involved collecting and analysing the data. Interviews and focus groups were recorded where possible. Structured templates were also used to help capture and organise data. The data was transcribed and translated (where appropriate) from each country. Two researchers independently analysed the transcripts. Content analysis was used to generate themes and identify relationships for explaining the data [49]. This was done iteratively as it was necessary to revise and refine categories and themes [50]. We used Maxqda, a computer-based qualitative analysis programme, to facilitate this process.

### 3.4 Report Findings

The barriers and challenges were categorised according to students' attitudes, systems constraints and pedagogical challenges. Figure 2 presents an overview of the challenges from our analysis. Whenever the challenges are stronger, the circles are bigger. No circles means that the barrier was not identified on the sample. These are discussed in more detail in the next section.

## 4 Findings

### 4.1 Student Attitudes

According to our analysis students' attitudes towards entrepreneurial education is a significant challenge for the Spanish and Turkish contexts. The attitude of students, according to school teachers, is the greatest obstacle in Spain, followed by Turkey and Ireland. Spain exhibited the greatest difficulties in terms of students' attitudes which manifested themselves in giving up, low self-esteem and exam. Students seem interested in entrepreneurial education when it offers promising employment prospects. For example, a teacher from Spain responded that *"interest depends on how close the students are to being included in the labour market"*. We found that there is a lack of willingness of students to participate in entrepreneurial projects and presentations. They suggest that the lack of self-esteem and motivation in students arises from the fear of being ridiculed in class for ideas. We also discovered that many students are motivated by money, and fame and students give up when this is not achieved quickly. For example, a teacher from Turkey stated that *"I usually see that children want to be YouTubers or they want to make money on Twitter, they want to lead a life like people who make money on social media or enter a business life, as a matter of fact. This is entrepreneurship. However, it is entrepreneurship that is not accepted by families. They don't know what the end is"*. We also found that a lack of a structured programme affects students' attitudes. According to the teachers, a structured program gives more clarity to teaching and students feel motivated to attend. One participant stated that *"It allows the students to show their own initiative and learn from the experience."*

For the Irish sample, most attitudes were not identified.

### 4.2 Pedagogical Challenges

Findings from our analysis revealed that a lack of teacher training programmes and the quality of teacher training poses a significant challenge to entrepreneurial education. Specific issues include a lack of understanding and inexperience of the topic, a lack of expertise in the field, inadequate training, and a dearth of teacher training programmes. Findings suggest that the Spanish participants in our study face the most difficulties in terms of teacher understanding, expertise, quality, and training programmes. A teacher from Spain highlighted the lack of training material and stated that *"students feel more comfortable when they are immersed in a guided and guided educational process and this sometimes clashes with the idea of entrepreneurship"*. A teacher from Turkey also highlighted the lack of structured training and stated that *"Unfortunately, I have not observed that my students are currently interested in entrepreneurship. I think that if students are sufficiently interested and given information, they will be interested in this subject if they receive training on this subject, but for now, I have not observed that there are any interested ones."*

### 4.3 System Constraints

According to our analysis systems constraints such as time management and infrastructure posed significant obstacles to entrepreneurial education, especially in Ireland and

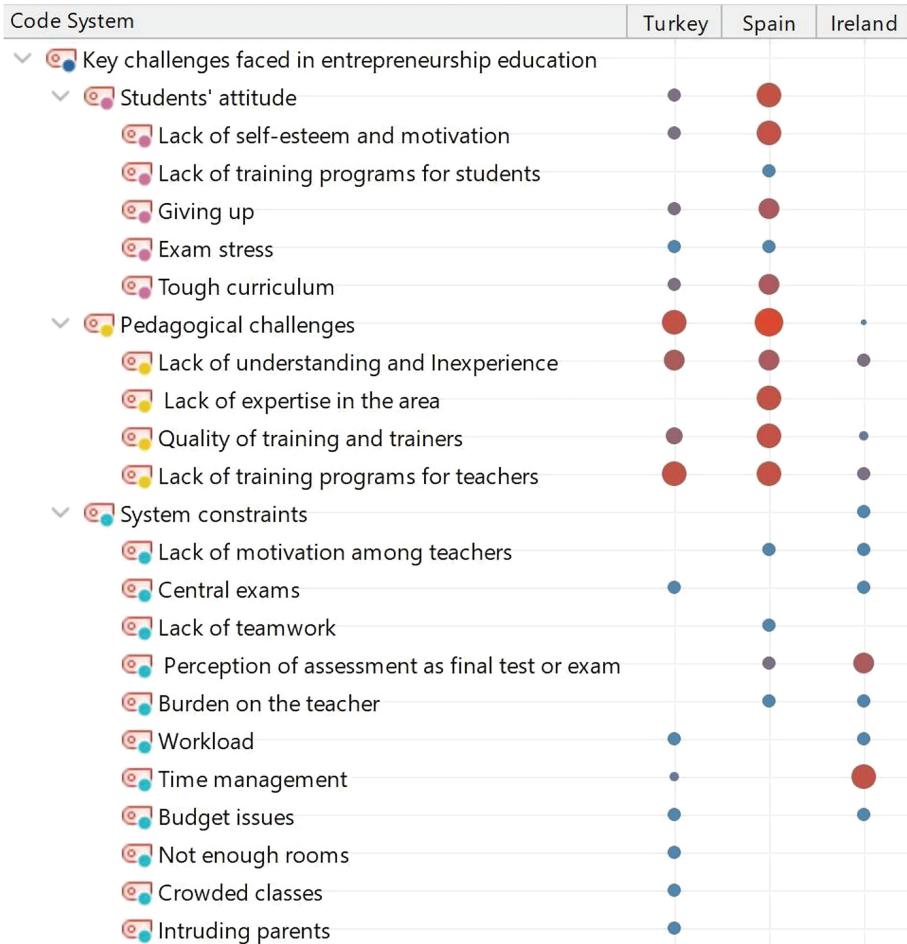


Fig. 2. Overview of findings

Turkey. According to a teacher from Ireland, “The key challenge is time as schools have become so busy. Many teachers are under stress trying to get through all the work to be done in schools.” Challenges in implementing entrepreneurial education include fitting it into a demanding exam-based curriculum, overstretched teachers who lack time to incorporate entrepreneurship into the classrooms, a lack of motivation, and a lack of resources such as classroom space and budget to develop entrepreneurial initiatives. For example, a teacher from Turkey stated that infrastructure is a significant challenge for them as they are unable to provide better classrooms and materials, “They (students) ask how they can get involved in such companies or what programming languages they can learn. In other words, they have an interest, but there are also students trying to do these things, but to think that there are different obstacles in this regard, let’s not say that it is not supported due to the problems in our education system, the biggest problem is the lack of infrastructure to meet their supply needs”.

In summary, our study indicates that students are interested in entrepreneurship education, but this interest is influenced by their teachers as well as their own personal interests. Implementing entrepreneurial education in secondary schools is challenging due to system constraints such as lack of time, training, budget, and resources. Teachers stated that some students prefer a guided educational process to entrepreneurship. Despite these challenges, secondary school teachers generally report positive student attitudes towards entrepreneurship education across the three locations, albeit in the context of a demanding exam-based curriculum.

## **5 Limitations and Future Research**

Several limitations must be acknowledged to provide a balanced interpretation of the results. First, the study was conducted in a limited number of countries (Ireland, Spain, and Turkey), which restricts the generalisability of the findings to other countries or contexts. Second, the sample size was relatively small, with only 29 teachers participating in our study. As a result, the study's external validity may be limited, and the findings may not reflect the views of the larger population. In addition, the qualitative methodology used in this study may have resulted in a limited range of responses, which the participants' peers may have influenced. Therefore, these limitations suggest the need for caution when interpreting the study's results and highlight the importance of addressing these limitations in future research in order to obtain more reliable results. This study suggests future research avenues. There is a need for more research on entrepreneurial education in secondary schools, as the existing literature is scarce. Furthermore, it would be interesting to correlate the findings from this study with particular factors such as the pedagogical approach and students' motivation. Finally, conducting a larger quantitative analysis would enable the robustness of the findings and could shed light on factors such as teachers' roles, students' attitudes, and entrepreneurial education pedagogical approaches.

## **6 Conclusions**

The aim of this study was to understand some of the challenges to entrepreneurial education in a sample of secondary school environments. Our study focused on three constructs namely student attitudes, pedagogical challenges and systems constraints based on a comprehensive synthesis of the extant literature [21, 30, 51–53]. Our findings reveal that while there is an appetite to adopt entrepreneurial education practices in our sample there are clear challenges to running entrepreneurial programmes in secondary schools. The majority of the challenges are related to systems and pedagogical factors. These challenges include issues relating to time management, lack of knowledge, skills and awareness of entrepreneurship among teachers, insufficient budgets and resources to fund entrepreneurship, and inconsistent attitudes towards entrepreneurship across the student population. It is clear that remedial actions must be initiated to address these challenges. These may include shifting mindsets, overcoming negative student attitudes, and implementing hands-on, engaging approaches. While addressing the grand challenges to entrepreneurial education is a large and complex initiative which demands

time and funding, there are some actions that can be implemented to foster good practice. For example, pivoting towards approaches that focus on building empathy, discovering problems and experimenting with many ideas to solve problems and challenges is essential. User-centred design thinking approaches have been widely used in industry, yet it has received little attention in schools. A design thinking approach to entrepreneurial education allows students to follow a process and apply templates and tools to come up with problems and ideas. Moreover, it enables them to understand the mindsets of entrepreneurs and develop tangible skillsets. It fosters a student-centred process and work can be graded on the development of competencies rather than output. Furthermore, the use of design thinking for entrepreneurship education can support the teacher without demanding them to be expert on the subject.

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