



# ENTRANCE: Enhancing the ENTRepreneurial mindset of non-business Academics in Europe

Pedagogical Guidelines

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# Project Partners



# 1. Introduction to Entrepreneurship Education

To briefly trace the origins for entrepreneurship education, lies three approaches that influenced the pedagogical developments in entrepreneurship education. First, it was the role of management education and business education for leaders, training for self-employment to improve economic development on a country level, and finally personal development for creating more democratic societies through leadership development, skill training and community building. The two core principles for entrepreneurship education are closely associated with (1) raised level of performance and (2) unleashed potential and creativity to unlock the can-do attitude. There is a difference between education for entrepreneurship and education about entrepreneurship. While one focuses on the combination of two core pedagogical approaches, such as experiential learning and reflective learning, the latter uses more the traditional classroom style delivery of information through case studies. While case studies provide efficient learning outcomes, such as developing an understanding of customer need, value proposition, business model and succession plan for starting a business, they are rarely bringing about the inner drive or instinctive motivation that individuals have developed towards their own ideas. Building a curriculum on the framework of Kolb's Learning Cycle (1984), by providing a concrete experience followed by reflective observation, abstract conceptualization leading into active experimentation could enhance the successful delivery for entrepreneurship education. To achieve success in teaching entrepreneurship, it is important to highlight the importance of the 'entrepreneurial process' by Geoffrey Moore (1991), his focus being "making it happen" combined with Jeffrey Timmons (1989) work on 'enactment' and the 'entrepreneurial mind'. (Vyakarnam & Hartman, 2011)

To reflect on the foundation for entrepreneurship education, the ENTRANCE approach was developed on activities that foster an 'entrepreneurial mindset' and also to develop skills in order to develop an idea into a business proposition, becoming self-employed or start a business. In this document we will provide a pedagogical guide for supporting non-business academics in understanding how best to create teaching and training materials for enhancing an entrepreneurial mindset.

## 2. Purpose (Aim and rationale)

The Pedagogical Guide contains methodological material to support non-business academics in creating their own training materials and courses for enhancing an entrepreneurial mindset within their classes.

The Pedagogical Guide is developed to;



- support academics in achieving the learning outcomes in entrepreneurship education via high quality teaching materials
- helps academics develop teaching materials and courses on the foundation of the EntreComp framework
- provide guidance for academics on how to foster a blended learning approach by using the ICT Business Toolkit
- guides academics to develop materials that support building entrepreneurial capabilities in students
- offers tips and helpful tools to design interactive courses and teaching materials for fostering an entrepreneurial mindset and support early stage venture creation

## 3. Reflection

### National Pilot Implementation Reflection

In order to develop guides for enhancing an entrepreneurial mind , each country has reflected on the implementation of the ENTRANCE model. To draw conclusions on how best to approach this, applying a simple SWOT analysis (Strength, Weaknesses, Opportunities, Threats ) or more positively oriented PACO analysis (Problem, Advantages, Challenges and Opportunities ) could be applied to the project outcomes. The aim of these analysis to reflect upon:

- individual experience
- institutional/organisational challenges , such as - size of the class, nature of the subject, entrepreneurial culture, appetite for commercialization, institutional policies, support from colleague, online infrastructure
- target audience (specific students, their needs and interest

It is important to assess the various factors that could support or delay successful implementation of a project on a national scale, such as limits of institutions (mostly universities). The analysis should not only take in consideration the resources (financial, human) available but also incentives of the academics and their individual/academic freedom to change their curriculum or design new training materials that are interactive. Last but not least it is crucial to reflect and understand the culture of the institution around entrepreneurship and the need for commercialization.

The most important factors for non-business academics to engage in the project were:

- Acquire new knowledge and methods on entrepreneurship
- Learn new methodologies to increase student's learning experience
- Understand the role of online tools in designing an interactive learning experience
- Acquire knowledge to how best to link technology to entrepreneurship



- Understand the role of a non-business academic in supporting technology transfer and commercialization

## Target Group Reflection per Country Experience

It is challenging to define the needs, interest and motivation of non-business academics for why it is important to enhance an entrepreneurial mindset within their students. Most of the knowledge, skills and competences of students and based on their experience. Entrepreneurship education focuses on experiential learning, ie. learning by doing. To respond to the nature of entrepreneurship education, it is important to work in close collaboration with students in designing new training materials for them with the aim to become more entrepreneurial. Important factors including their subject and mostly prior experience is key. Thus, the reflection has to be based on experience with students across all subject areas and mostly on a graduate level. The majority of the students in each pilot project were graduates with subjects in technology science, computer science. While the pilot projects were tested on technology based subjects, it is important to acknowledge that enhancing an entrepreneurial mindset is equally important in subjects such as art and humanities, sociology and education.

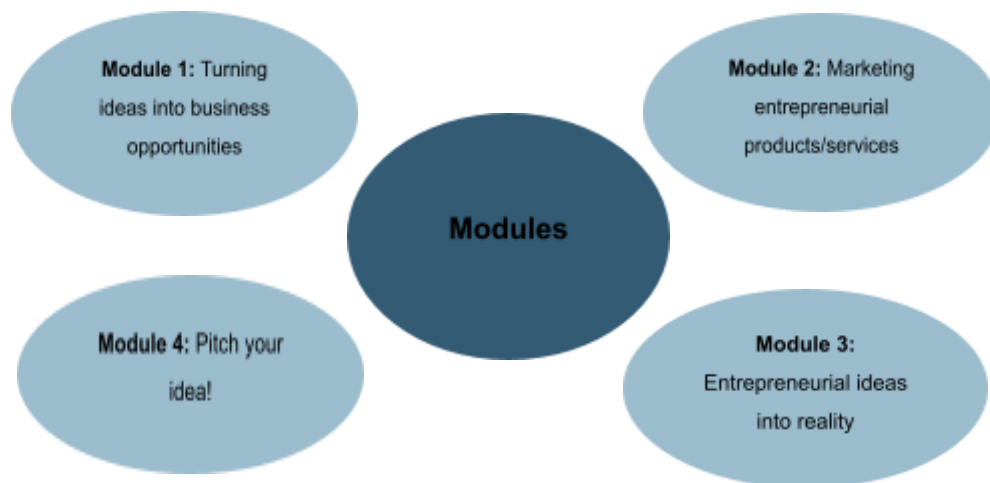
## 4. Learning methods

### Summary of ENTRANCE methodology

ENTRANCE programme was designed as a competence-based model, first combining activities that foster Enterprise Education which considers how academics can integrate and build their students' entrepreneurship skills during their teaching regardless of their academic discipline with the aim to enhance students' entrepreneurial mindset. Secondly, including skills development through Entrepreneurship Education for academics and students from various disciplines who are interested in developing a business idea, becoming self-employed/freelance or creating a business.

In order to build upon the enterprising competencies of academics/students four modules have been developed based on three key methods; the results of our primary and secondary research; partners' feedback on projects related to entrepreneurship and the EntreComp framework.





## Competency-based training

Following the European Commission's Entrepreneurship Competence Framework (EntreComp, 2016) entrepreneurship is defined as a transversal key competence applicable by individuals and groups, including existing organisations, across all spheres of life. The EntreComp model puts emphasis on competence-based education and training and divides the learning process into three areas, those of 'Ideas and Opportunities', 'Resources' and 'Into Action'. The desired competencies for academics to acquire includes areas such as 'planning and management' or 'financial and economic literacy'. These would be applicable to Entrepreneurship Education as their main focus is how to make a business idea a reality, whereas other components such as 'spotting opportunities', 'creativity' and 'vision', would be applicable to all academics and students that desire to reinforce their entrepreneurial mindset despite whether they want to put into action their business or research idea.

In order to reach a desired outcome, we have outlined the key areas where training could be provided for academics in order to overcome the difficulties for designing teaching materials for enhancing an entrepreneurial mindset.

- Intellectual property - Analytical, willingness to get to grips with things someone does not understand
- Looking for external help - Communication, argumentation, presentation
- Use of social media - Communication, writing, creativity, making connections
- Recognition of possible risks in advance - Be proactive and analytical
- Development of a business plan - Communication, negotiation, financial, marketing, leadership, project management, time management, problem solving, networking
- Financial issues - Financial literacy, Growing planning



- Marketing entrepreneurial products/services - Creativity; hands-on experience with digital, neuromarketing (i.e., eye-tracking) and AI/ML tools

To maximise the learning outcome for non-business academics , especially those who will teach the subjects and topics according to the feedback they should consider the following;

- Every individual learning outcome, especially enhancing an entrepreneurial mindset, is applied in every single module
- Various subjects or topics could work in synergies to help student develop their skills
- The online platforms should be integrated to maximise learning outcomes and experience user experience
- The modules should carefully follow a learning flow , in other words academics should carefully consider the flow in which each module is thought and delivered
- In terms of evaluation and learning experience , strong emphasis needs to be put on self-reflection. Reflective learning is a key part of the learning experience.

## Introducing ENTRANCE E-Learning Platform

The programme supports the ongoing digital transformation which brings profound changes to teaching and learning in higher education by enhancing its training programme with the use of Massive Open Online Courses (MOOC). This approach combines different sources of information and knowledge transforming them into a dynamic and open learning environment – where academics and students interact, reflect and create knowledge – supporting also interdisciplinary and flexible study programmes. Specifically, the pilot training will follow the blended learning approach which combines online educational materials and opportunities for interaction online with traditional place-based classroom methods.

## Designing the MOOC

Many academics coming from different disciplines select to create their own business in parallel with their academic duties or not. Developing a new venture involves testing the commercialisation of a business idea and choosing the best options for growing the business, including assembling resources, protecting intellectual property, developing the business model, identifying and targeting the market and attracting funding.

The ENTRANCE MOOC equips non-business academics with the knowledge that is required for developing and refining business creation strategy which provides an academic underpinning to the process. This MOOC is designed to provide non-business academics a broad knowledge and understanding of the entrepreneurial and innovation agenda, the need for innovation and all aspects of the new venture creation process. It is designed to have five modules that will facilitate

the development of a Business Model Canvas. This step by step approach provides the time and the opportunity to develop a flow to the learning experience with the aim to produce a comprehensive business plan to launch a business.

The ENTRANCE online learning platform is designed with a blended learning approach combining interactive face to face interactive lectures with asynchronous learning materials where students have access to learning materials such as videos, quizzes, glossaries, additional resources, case studies, and suggested self- completion activities. The ENTRANCE programme combines four modules designed as an synchronous learning experience where participants interact with the lecturer and between each other through group activities. Followed by using the Business Plan Toolkit where they can design their own pace for revisiting each module online with the end goal for building a business strategy through the Business Plan Toolkit. To improve design the key learnings included;

- Clear learning flow where each module feeds into each other
- Combining tools into one platform
- Easy access and usability
- Efficient use of time by accessing short (up to 5 minutes) videos

## Advantages and Benefits of MOOC

The ENTRANCE MOOC is a helpful tool for non-business academics to either improve traditional classroom style delivery or to be used as a stand alone platform to develop specific knowledge and skills for taking an idea into a business case. Other advantages and benefits include:

- Easy access to participants
- Open to everyone
- Possibility to mix and match module content according to the core discipline
- Learn from practitioners and entrepreneurs around the world through live online sessions and also pre-recorded video cases
- Pre-recorded video cases from different cultures could inspire and motivate students and also raise awareness of the importance of cultural identity and how it affects business
- Share knowledge, engage in discussion forums, engage with an entrepreneurial community
- Inspire, engage and motivate students to step out of their comfort zone
- Enhancement of active learning

## Possible Challenges for using MOOC

Despite the fact that MOOCs are very useful tools for enhancing traditional training and courses, it also has a few potential challenges that need to be reflected upon;

- It is dependent of the technical equipment and network quality of the learner
- Short videos and online lectures are available only in one language
- Includes a great number of materials which can dilute learners' deep learning experience if rush through
- Setting the right set of tools to provide continuous feedback and assessment for completing each module online
- Simplifying platforms and access to materials
- Clear strategy for intellectual property protection of the ideas introduced on the platform

## Delivery methods MOOC

The MOOC consists of four modules addressing five macro-areas dedicated to the development of a Business Plan Model emphasising the Business Model Innovation:

- Module 1: Turning ideas into business opportunities
- Module 2: Marketing entrepreneurial products/services
- Module 3: Entrepreneurial ideas into reality
- Module 4: Pitch your idea!

Each module has been designed as part of a continuous learning experience where different learning delivery tools have been used to improve the learner's experience. Using short videos and quizzes not only motivates learners to continue with the completion of the course but also increases the mastery of learning through online.

Case studies provide an efficient way for participants to develop an understanding of core business knowledge such as business opportunity and business idea, market need, value propositions, intellectual property, business model and succession plans for turning an idea into a business case.

There are various activities designed as part of the MOOC learning experience to support the development of an entrepreneurial mindset. Using experiential learning through engaging with an online business plan toolkit increases the pedagogical benefits for using MOOC.

There are various ways to deliver content to participants in order to enhance an entrepreneurial mindset. One of the most conventional ways to deliver information and knowledge to participants is through a lecture, however it is important to acknowledge that a face to face session is as interactive as the lecturer makes it. To achieve the desired learning outcome and raise entrepreneurial intent, it is important to have two lecturers in the room throughout the module. One lecturer should have a technical background focusing on a subject matter and the other lecturer with a business background to bring in practical credibility and to inspire the audience. This could be a guest speaker, an entrepreneur, business person, but most important to be a practitioner.



In order to nurture an entrepreneurial mindset, it is important to understand different cultural contexts and develop an awareness of the cultural diversity in which businesses emerge from and operate in. Therefore, it is important to work in collaboration with teachers and students from diverse professional and cultural backgrounds when designing content for entrepreneurship education.

## Business plan toolkit

The business plan toolkit is an interactive online tool designed to support activity learning, ie. learning by doing, as a core pedagogical approach to entrepreneurship education. By presenting new information in an interactive way in which learners connect new information to their previous knowledge, learning becomes deeper. As part of the interactive tool, learners will engage with the tool in a multiple way to build a business model canvas at the end of the session using all their previous learning from the MOOC learning platform. By connecting their knowledge to a practical tool the learning experience deepens which leads to an increased level of entrepreneurial self-efficacy of learners.

## Pedagogical Challenges

*How to increase entrepreneurial confidence?*

While case studies provide efficient learning outcomes, such as developing an understanding of customer needs, value propositions, business models and succession plans for starting businesses, they are rarely bringing about the inner drive or instinctive motivation that individuals have developed towards their own ideas. To achieve success in teaching entrepreneurship via MOOC platform, it is important to highlight the role of activity learning as Entrepreneurship is not only about the idea but also about all the activities along the entrepreneurial process. Providing learners with an online platform to perform tasks is a way to build entrepreneurial confidence. Tasks through the MOOC platform that support the increase of entrepreneurial confidence might include;

- Making short self-introduction
- Project or business planning
- Building something - as part of the business plan toolkit
- Taking on a real idea for building a business case
- Conducting market research for a new product or service

*How to retain attention through motivation?*

One of the biggest challenges is to retain attention and to keep learners motivated to complete each task on the MOOC. While instinctive motivation is key, we can also use principles to engage with learners and retain their attention to complete their tasks.

- Keep learners active by providing interactive tools for self-assessment and self-reflection
- Use formative assessment
- Apply principles of deep learning - using gained knowledge creatively - when providing feedback on learners work
- Use gamification to notice achievement and also apply tools of digital, neuromarketing (i.e., eye-tracking) and AI/ML tools
- Clearly visualise how much learner achieved and how much it is to complete the MOOC
- Celebrate small achievements - reward
- Simplify access to learning tools

## 4. Learning outcomes

### Entrepreneurship Education intended learning outcomes (ILOs)

- Develop an entrepreneurial mindset in which they can recognise and exploit opportunities in order to build new ventures
- Increasing entrepreneurial self-efficacy in which participants belief in their ability to explore entrepreneurship increases
- Successfully apply creative approaches to design innovative solutions to complex problems
- Building entrepreneurial skills and capabilities which could support their career development for the future

## Conclusions

As part of the ENTRANCE programme, each partner country has delivered a pilot study, including face to face delivery of all four modules combined with the use of the online Business Toolkit. To complete the guide, we have applied a reflective learning approach and asked each partner to provide a short summary on the most important pedagogical approaches they have successfully tested as part of their ENTRANCE experience.

**Cyprus:** The overall experience in Cyprus proved beneficial for the participants, since a lot of them claimed that they have gained an entrepreneurial flare, which they might use to think of a new business in the near future. The blended learning approach worked sufficiently, and gave the participants the opportunity to meet f2f, and online, interact, and collaborate on the basis of utilising the Business Plan Toolkit and the BMC.

**Greece:** In the framework of the piloting experience in the Greek context, the majority of comments and feedback received was positive. Participants in the piloting phase agreed that the training's content was relevant and useful, the blended formulation of the content with theory and practice



was appropriate, and the facilitators were highly skilled. Concerning the content, it was admitted that it was attractive, well-organised for both in-person and online trainings, and with transversal format, adaptable to different environments.

**Lithuania:** The training has shown (based on the numbers of interested participants) that the importance of entrepreneurship education among non-business academics exists. Notably, the training was delivered in a face-to-face setting by one lecturer/facilitator and organised in an experiential way. In order to ensure maximum engagement for each participant, the training was delivered by a lecturer and experience facilitator or business person. All prepared teaching materials were used in alignment with lecturers' curriculum. Furthermore, local examples for experiential learning were included, like live sessions with early-stage startups. Thus, the same logic should be included for the online or hybrid version.

**Portugal:** Considering that the team had two classes with students from different disciplines, levels of education and without any business experience, active methodologies were used as a pedagogical approach. The team applied design thinking to create an innovative product/service and DIY (do-it-yourself) to prototype and present their business. Design thinking was used because it is a creative and innovative methodology to think and solve problems, putting people at the centre of solutions focusing on empathy and collaboration. The training and presentation time of the modules was divided into four stages: 1) Brainstorm which was aimed at finding and analysing a desirable, feasible, and technically possible product/service idea. 2) Filling in the Business Model Canvas on the platform. 3) Prototyping or Do it Yourself in which various stationery materials were used for the teams to produce a variety of prototypes and finally 4) Pitch - storytelling. All the teams presented a pitch deck, and an elevator pitch of the business idea developed.

To sum it up, the ENTRANCE approach was developed on activities to foster an 'entrepreneurial mindset' and to develop entrepreneurial skills and competencies for non-business academics. This pedagogical guide was especially designed with the aim for supporting non-business academics in understanding how best to create teaching and training materials for enhancing an entrepreneurial mindset.

## Annexes

The following material for the primary research has been designed based on the competences of the EntreComp framework, the systematic literature review and the internet search by GrantXpert.

EntreComp framework material:

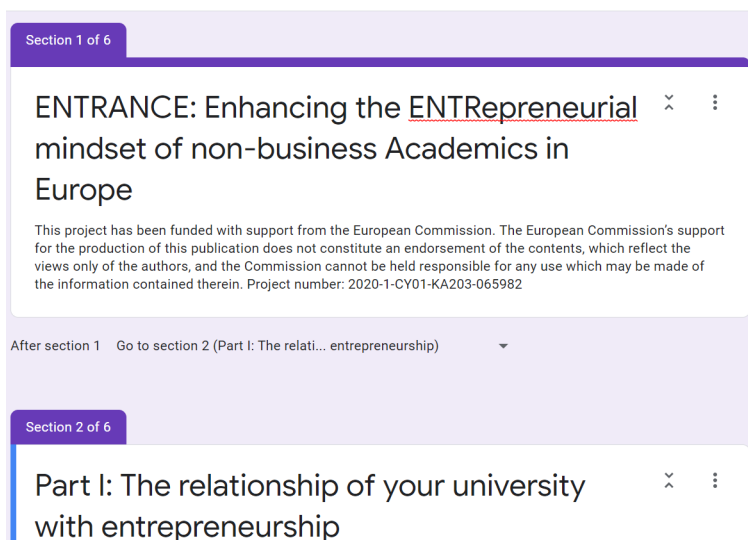
### For entrepreneurial competences:

EntreComp Into Action Get Inspired Make It Happen: A user guide to the European Entrepreneurship Competence Framework

### For pedagogical Approaches:

EntreComp playbook: Entrepreneurial learning beyond the classroom

## Annex I



The questionnaire can be found here:

[https://docs.google.com/forms/d/e/1FAIpQLSdFNIkDFC3XPWjoFmmgIH2\\_k3T4vcRB599Ngi6CsnmLjD4LTw/viewform?usp=sf\\_link](https://docs.google.com/forms/d/e/1FAIpQLSdFNIkDFC3XPWjoFmmgIH2_k3T4vcRB599Ngi6CsnmLjD4LTw/viewform?usp=sf_link)

## Part III: Entrepreneurial skills

### Ideas & Opportunities

1. Please explain the rationale of your business idea. What elements did you consider for the identification of your business idea/opportunity?
2. What is more important to you: the novelty of a product/idea or its meaning?
3. Does your idea hold innovative characteristics and why (competitive advantage, competitors respond)? Can this advantage be sustained and how?

### Resources

4. Which are those resources (tangible and/or intangible) which helped to turn your idea into action? (e.g., follow strategies, reward, time management, funding, social media).
5. Do you use digital resources? Why do you consider technology as an important element for your business idea? For which tasks do you use digital resources (mention some software)?

The template can be found here: [https://1drv.ms/w/s!AtX7ONJK8jZAiEXq8Q3Fhuf\\_Sb9w?e=7npb0G](https://1drv.ms/w/s!AtX7ONJK8jZAiEXq8Q3Fhuf_Sb9w?e=7npb0G)

