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Chapter

Mapping Entrepreneurial Competences for the Cultural and Creative Industries: An Application of the European Entrepreneurship Competence Framework to Course Design

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Abstract

Entrepreneurial education for the Cultural and Creative Industries (CCIs) has gained visibility in educational settings, notably higher education institutions, fostering a business-driven approach to creativity and value in cultural and artistic production. At the core of this approach lies the development of an entrepreneurial mindset, a principle underscored by the European Entrepreneurship Competence Framework (EntreComp). This framework serves as the European benchmark for initiatives promoting entrepreneurial learning, such as the project 'Fostering Entrepreneurship and Innovation in Cultural and Creative Industries through Interdisciplinary Education' (FENICE), developed under the Erasmus+ Program of the European Union. Drawing on the insights gained from the FENICE project, this conceptual work outlines the application of EntreComp in designing a teaching program aimed at bridging existing skill gaps in entrepreneurship within the CCIs, cultivating an entrepreneurial mindset, and promoting key competencies outlined in EntreComp. This chapter underscores the importance of aligning educational initiatives with EntreComp to equip students with managerial capabilities and foster entrepreneurial skills, tailoring the curricula with entrepreneurial learning outcomes that align with the unique context of the cultural and creative sector. Nevertheless, limitations are to be acknowledged, including the absence of empirical data to evaluate the actual progression of entrepreneurial competencies among students and the necessity for nurturing an entrepreneurial culture and refining educational frameworks within the CCIs.

Keywords: entrepreneurship education, learning outcomes, course design, European Entrepreneurship Competence Framework, cultural and creative industries

1. Introduction

Entrepreneurial education is deemed by many experts to significantly improve the entrepreneurial environment of most economies [1]. This perspective aligns with human capital theory (e.g., see Ref. [2]), which suggests that increased productivity can be achieved through educational attainment, knowledge, experience, and skills training. Furthermore, the growing interest in entrepreneurial education is driven by the recognition that entrepreneurship plays a crucial role in economic growth and employment. Studies have indicated that entrepreneurship education can significantly contribute to developing more, and more capable, entrepreneurs [3, 4].

The Cultural and Creative Industries (CCIs) encompass the production and/or distribution of goods or services with attributes connected to cultural expressions usually protected by intellectual property rights. Those industries comprise, as per the Green Paper on the Potential of CCIs of the European Commission [5] and refer in particular to performing arts; visual arts; cultural heritage; film, DVD and video; television and radio; video games; new media; music; books and press; architecture; and design (including graphic design, fashion design, and advertising). The vast majority (96%) of cultural and creative businesses are micro-enterprises, employing less than 10 employees. Additionally, much of the work in this sector is project-based, leading cultural and creative organizations to frequently collaborate with freelance workers in temporary arrangements [6].

CCIs are content, knowledge-intensive, and technology-driven enterprises, making them inherently suited for interdisciplinary research and education. Despite the higher education and skill levels of cultural and creative workers compared to the average workforce, the sector still faces significant skills gaps, particularly in entrepreneurship [6]. By developing their entrepreneurial and managerial abilities, students and graduates can infuse the CCIs with innovative smart, creative, and self-sufficient individuals capable of guiding and sustaining the creative economy. Thus, it is crucial to focus on cultivating these skills to ensure the CCIs are endowed with professionals who can drive innovation and maintain the sustainable operation of the global creative economy.

The purpose of this chapter is to explore the potential of applying the European Entrepreneurship Competence Framework (EntreComp) to design teaching programs tailored for the CCIs, that encourage the development of an entrepreneurial mindset. Introduced in 2016 as part of the “New Skills Agenda for Europe: Working Together to Strengthen Human Capital Employability and Competitiveness” initiative by the European Commission, the EntreComp framework seeks to establish a shared understanding of entrepreneurship competence that comprises knowledge, skills, and attitudes essential for individuals to nurture an entrepreneurial mindset and culture, thereby resulting in both individual and societal benefits.

The application of the EntreComp framework to a teaching program developed within the scope of an Erasmus+ Project, entitled “Fostering Entrepreneurship and Innovation in Cultural and Creative Industries through Interdisciplinary Education” (FENICE), is herein outlined. FENICE is a collaborative initiative involving academic and research institutions in five program countries (Bulgaria, Romania, Portugal, Greece, and Serbia) aimed at facilitating research and defining best practices to address the management and entrepreneurship needs of the CCIs. The project endeavors to align educational offerings with the evolving skill requirements of the creative economy, emphasizing innovation and sustainability. Through this consortium, diverse specialists bring together their expertise to promote collaboration,

exchange knowledge, and develop best practices that enhance the quality and relevance of business education for the CCIs, thereby stimulating their innovative potential and social impact.

The development of interdisciplinary entrepreneurship provides opportunities to engage students in more contemporary educational practices, thus creating the success factors needed for personal fulfillment, active citizenship, social cohesion, creativity, business, financial modeling, employability, and competitiveness. However, there is a lack of education, teaching, and strategies to promote entrepreneurial culture among students at the school level [7]. There is evidence in the literature about exploring how entrepreneurial culture can be nurtured and developed using an interdisciplinary and holistic approach [7].

The development of interdisciplinary entrepreneurship education presents a promising opportunity to involve students in modern educational approaches, fostering opportunities for personal fulfillment, active citizenship, social cohesion, creativity, business knowledge, financial literacy, employability, and competitiveness. Nonetheless, more educational frameworks, pedagogical methods, and interdisciplinary and holistic approaches aimed at cultivating and nurturing an entrepreneurial culture among students at the school level could still be developed.

The goal of this chapter has been to discuss the benefits and share best practices in relation to the design of teaching programs for the CCIs, with a focus on the most relevant entrepreneurial competencies. It explores curricular and pedagogic dimensions in the course design, including the relevance of the learning outcomes and the adequacy of the assessment methods selected to attain entrepreneurial learning outcomes.

2. Theoretical background

2.1 Entrepreneurship education

Sense of initiative and entrepreneurship stand out as the essential competencies among the eight crucial areas aimed at fostering lifelong learning, enhancing employability, and securing success within a knowledge-driven society [8]. According to the OECD [9], entrepreneurship is defined as the capacity to use existing resources to exploit new or alternative opportunities. It commonly refers to the establishment of new small-scale enterprises or embodies a distinct business mindset characterized by risk-taking and innovation promotion. Recognizing its indispensable role in driving economic growth, the OECD underscores the multifaceted nature of entrepreneurship [6, 9]. Similarly, as per the European Commission [10], entrepreneurship involves identifying opportunities and ideas and translating them into value for others, spanning financial, cultural, and social dimensions.

The EU has been proactively endorsing entrepreneurship initiatives, recognizing it as a vital competence within the European framework. Entrepreneurship not only enhances employability levels but also stimulates competitiveness and drives economic growth. The European Commission demonstrates a strong dedication to promoting and supporting entrepreneurship education through various means. This commitment is evidenced by funding European projects aimed at establishing reference models for future replication, issuing calls for proposals, actively advocating for good practices and experiences at the European level, organizing workshops for policymakers and practitioners, facilitating networking opportunities for policymakers

and other stakeholders, disseminating extensive information and guidelines derived from existing good practices across Europe, and conducting studies, collecting indicators, and releasing data relevant to this field.

Competence may be defined as the ability to proficiently apply learning outcomes, knowledge, skills, and personal, social, and/or methodological abilities across various contexts, including education, work, and personal or professional development. Therefore, competence extends beyond cognitive aspects, such as knowledge, to include functional components like technical abilities, interpersonal components such as social or organizational skills, and ethical principles [11]. Entrepreneurship competencies can be explored in various fields and domains, and are central to educational settings, spanning formal education systems like schools, universities, and educational centers, as well as nonformal education contexts, including youth and adult learning organizations and lifelong learning activities. Beyond education and training contexts, these competencies find application in diverse settings. For instance, individuals working in policy advocacy, supporting start-ups and entrepreneurs, or engaged in recruiting and managing human resources can all make use of entrepreneurship competencies to be successful in their respective domains [12].

Entrepreneurship competence is both an individual and collective capacity, finding application across diverse scenarios ranging from school curricula to workplace innovation, community initiatives, and practical learning experiences at universities. Tajpour et al. [13] explored the impact of knowledge management components on the sustainability of technology-driven businesses, with social media serving as a mediating variable in emerging markets. This studies underscore the importance of integrating knowledge management components across all managerial dimensions for technology-driven companies to thrive in a sustainable environment, thereby creating value and fostering sustainable competitive advantages in today's dynamic business landscape. Furthermore, if effective participation in organizational social networks is developed, it can stimulate knowledge management and facilitate value creation.

Entrepreneurial competencies are perceived as a wide range of characteristics, including personality traits and specific knowledge and skills essential for a successful entrepreneurial venture [14]. A comprehensive range of competencies such as creativity, autonomy or personal control, motivation, self-confidence, initiative spirit, perseverance, time management, and task organization, management of uncertainty and risk, problem-solving and decision-making, opportunities assessment, critical capacity, market orientation, leadership, the capacity for teamwork, communication, or networking are identified as particularly relevant in educating for entrepreneurship [15, 16]. Recognizing the importance of entrepreneurial competencies, they should be cultivated and acknowledged as a vital component of lifelong learning, progressively nurtured at all levels of education [10].

The CCIs represent a dynamic and rapidly evolving sector that significantly contributes to economic growth and employment worldwide. These industries, encompassing a wide array of activities from arts and heritage to media and design, are characterized by their reliance on creativity, cultural value, and intellectual property [5]. The cultural and creative sectors are recognized for their innovative capacity as they significantly contribute to various aspects of societal well-being and cohesion. They play a crucial role in enhancing both urban and rural areas, fostering the development of diverse products and services, enriching individuals' visual experiences, and providing content for meaningful debates [17]. With an annual revenue of €509 billion, the CCIs make up 5.3% of the EU's total GDP. Furthermore, they provide employment opportunities for 12 million people on a full-time basis,

constituting 7.5% of the EU's workforce and ranking as the third-largest employer sector in the EU [17].

Entrepreneurship education plays a pivotal role in the CCIs by equipping creative students and professionals with the necessary skills to transform their ideas into viable business ventures, as it helps them to better understand and tackle the complexities of the market. The CCIs often involve nontraditional business models and revenue streams, such as royalties, licensing, and crowdfunding [18, 19]. Creative entrepreneurs in the CCIs are driven by intrinsic motivation and seek out new opportunities. They play a crucial role in economic development but face challenges in balancing business economics with cultural and creative values, the reason why entrepreneurship education is key in equipping creative entrepreneurs with the knowledge, skills, and attitudes necessary to navigate the complexities of the creative market and successfully monetize their cultural and artistic creations. A solid foundation in entrepreneurship may allow creatives to monetize their work effectively while protecting their intellectual property rights [20].

2.2 EntreComp: The Entrepreneurship Competence Framework

In 2013, the European Commission adopted the Entrepreneurship 2020 Action Plan, presenting a renewed vision and a series of actions to be implemented at both the EU and Member State levels to bolster entrepreneurship across Europe. The plan is structured around three pillars: developing entrepreneurial education and training, creating the right business environment and role models, and reaching out to specific groups. Furthering these efforts, in 2016, the Commission launched the European Entrepreneurship Competence Framework (EntreComp) as part of the New Skills Agenda for Europe. This framework aims to support and inspire initiatives to enhance the entrepreneurial capacity of European citizens and organizations by fostering a common understanding of the knowledge, skills, and attitudes necessary for entrepreneurship.

EntreComp is a free, flexible reference framework designed to support the development and understanding of entrepreneurial competence across various sectors. Since its launch in 2016, the EntreComp framework has aimed to promote innovation, employability, and learning through entrepreneurial mindset thinking and action. The European Pillar of Social Rights emphasizes the importance of lifelong learning for ensuring equal opportunities, access to the labor market, and social inclusion [10].

The EntreComp defines entrepreneurship as “the capacity to act upon opportunities and ideas and transform them into value for others. The value that is created can be financial, cultural or social” [10]. This framework comprises 15 entrepreneurship competencies that form the foundation of an entrepreneurial mindset. These competencies are grouped into three areas: Ideas & Opportunities, Resources, and Into Action. Each area contains five competencies, which are further elaborated into thematic threads and learning outcomes. The learning outcomes are mapped across eight progression levels: Discover and Explore (foundation levels, where entrepreneurs rely on support from others), Experiment and Dare (intermediate levels, where they build independence), Improve and Reinforce (advanced levels, where they take responsibility), and Expand and Transform (expert levels, where they drive transformation, innovation, and growth). The development of the EntreComp framework involved a mixed-methods approach, including a review of academic and gray literature, case study analysis, and iterative stakeholder consultation [10].

In this context, the EntreComp framework serves as a valuable tool for developing entrepreneurial skills and competencies, facilitating updates in teaching approaches and methodologies. For example, a study by Armuña et al. [21] used EntreComp to explore the relationship between entrepreneurship competencies and entrepreneurial intention, particularly focusing on gender differences. They found that women are less likely than men to express an interest in starting their own business, with a perceived lack of ability being a more significant barrier for women than for men. Additionally, Bhatti et al. [22] suggested methods for creating entrepreneurial education and training programs that enhance psychological traits and emotional intelligence, illustrating practical applications of the EntreComp conceptual paradigm. Supported by desk analysis and interviews, Dinning [23] applied the EntreComp framework to investigate how curricula can support the development of competencies desired by enterprises. Rayna and Striukova [24] used EntreComp as one of the frameworks in their qualitative research to identify the entrepreneurial and digital skills that fab labs and maker spaces foster in the twenty-first century. These studies demonstrate the versatility and impact of the EntreComp framework in various educational and professional contexts.

3. Methods

This conceptual work outlines the application of the EntreComp in designing a teaching program aimed at fostering entrepreneurship and innovation within the CCIs aimed both at higher education students and adult learners, developed within the scope of the Erasmus+ Program of the European Union entitled ‘Fostering Entrepreneurship and Innovation in Cultural and Creative Industries through Interdisciplinary Education’ (FENICE). Fostered by the European Union, this academic initiative aims to enhance the quality and relevance of business and art education for the CCIs in five countries (Bulgaria, Romania, Portugal, Greece, and Serbia), aiming for the following objectives: (i) to support research and best practices exchange in management and entrepreneurship for the CCIs; (ii) to adapt education to the creative economy’s skills needs, innovation, and sustainability value; and (iii) to model university-driven solutions to promote incubation, start-ups, and entrepreneurship in CCIs, including career counseling/professional pathways for traditional and nontraditional students.

The designed teaching program, conceived in the context of the FENICE projects, primarily targets students and professionals with arts and humanities (A&H) and/or economics and business studies (B&E) backgrounds. With an interdisciplinary base, this course combines the theory and practice of entrepreneurship and management as platforms for leveraging self-employment and acquiring and/or improving skills, abilities, and knowledge. By strengthening these areas, learners will be even more prepared to take on new sustainable personal and/or professional challenges within the context of the CCIs.

The EntreComp framework comprises three competence areas: Ideas & Opportunities, Resources, and Into Action, each comprising five competencies. The EntreComp competencies were meticulously mapped to specific learning outcomes relevant to the CCI context. This involved aligning each of the 15 competencies with targeted skills and knowledge areas essential for entrepreneurship and innovation in these industries. This stage was carried out in collaboration with instructors and students who participated in the program, along with consultations with stakeholders

from the CCIs. Using EntreComp as a foundational guide, the curriculum was structured to include modules and activities that promote the development of each competence. This chapter uses EntreComp's comprehensive approach to entrepreneurship education to ensure that the program addresses the diverse skill sets required for entrepreneurial success in the CCIs.

4. The application of EntreComp to the FENICE project: A course design proposal for the CCIs

4.1 Course overview

The course developed within the FENICE project has a theoretical and practical foundation in management and entrepreneurship in the CCIs. The inherent interdisciplinarity in these areas allows for the integration of experiential learning activities and teaching approaches at various stages of the course, facilitating the development of skills, competencies, and knowledge. Consequently, individuals completing this course will gain a deeper understanding and practical insight into combining the creation, production, and distribution of products and services characteristic of the CCIs, which often possess qualities that are difficult to measure and are frequently subject to intellectual property rights and duties.

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The course content is designed for both students (BA and MA levels) and professionals, including adult learners or graduates from vocational or higher education. Students have a workload of 60 hours, equating to 2–3 ECTS credits, while professionals have a 30-hour workload. The course is divided into two central thematic units: Unit 1—Understanding Entrepreneurship in the CCIs and Unit 2—Entrepreneurial Practice: Modeling a CCI Enterprise. This structure allows specific objectives and learning outcomes to be tailored to the target audience of each area. Additionally, the generic nature of the course content enables activities to be structured for on-site, hybrid, blended, and online formats. This flexibility supports initiatives that explore both the individuality and the collective experience of the participants.

4.2 FENICE's entrepreneurship education outcomes

Learning outcomes can be defined as statements that define what a learner knows, understands, and can do upon completing a learning process, expressed in terms of knowledge, skills, and competence. These outcomes are used in qualifications frameworks, standards, and curricula to articulate educational intentions and goals. Importantly, they represent desired targets rather than actual outcomes of learning. Learning outcomes are always learner-centered, focusing on what the learner is expected to know, be capable of doing, and understand. Learning outcomes help clarify educational intentions and serve as benchmarks for demonstrating actual learning achievements [11].

Considering the scope of the FENICE project and its interdisciplinary approach, students and trainees are expected to acquire a core group of skills and attitudes, including:

- Understanding the key characteristics of the economy of the CCIs;
- Designing business models for CCIs, encompassing strategic business planning, innovative methods for fund generation, stakeholder management, and partnership development;
- Identifying new business opportunities for CCIs with a focus on long-term financial sustainability; and
- Working effectively in interdisciplinary cultural and creative teams.

The thematic Unit 1—Understanding Entrepreneurship in the CCIs, aims to help students understand the core concepts related to the CCIs, as well as their potential for connectivity and innovation, particularly social innovation. This unit focuses on conceptual and policy-related program content. Specific learning outcomes for Unit 1 include:

- Positioning the cultural and creative sector within the broader society and economy;
- Differentiating and selecting various types of CCI projects and work teams;
- Recognizing and addressing ethics and intellectual property issues;
- Understanding the economic implications of cultural policies;
- Identifying key stakeholders related to cultural policies;
- Recognizing the importance of new digital techniques and technologies for the CCIs;
- Promoting CCI activities, products, and projects.

The thematic Unit 2—Entrepreneurial Practice: Modeling a CCI Enterprise, aims to provide students with an understanding of the specificities of business ventures within the CCIs, emphasizing cooperation, co-creation, and interdisciplinarity. Business planning serves as a crucial pedagogical tool, with program content directed at guiding students through the various steps of developing a business plan. Specific learning outcomes for Unit 2 include:

- Generating and/or identifying business ideas within the CCIs;
- Devising viable solutions to encountered problems;
- Distinguishing relationships among components of business and its environment;

- Managing material and digital resources required to implement ideas;
- Planning for value creation and financially sustainable activities;
- Cooperating with artists and cultural workers in the development of business ideas;
- Creating work (e.g., scale models, artifacts) for presentation across various platforms, including social media and different environments;
- Documenting the artistic research processes and collecting data for the characterization of artistic activities.

4.3 Mapping entrepreneurship competences

The course encourages the implementation of the European Entrepreneurship Competence Framework (EntreComp) developed by the European Commission. This framework develops a comprehensive description of the necessary knowledge, skills, and attitudes people need to develop an entrepreneurial mindset and create financial, cultural, or social value for others [10].

EntreComp delineates 15 competencies across three key areas (*Ideas & Opportunities*, *Resources*, and *Into Action*) (see **Table 1**) that translate the meaning of being entrepreneurial. Each thematic unit of the course (Unit 1—Understanding Entrepreneurship in the CCIs, and Unit 2—Entrepreneurial Practice: Modeling a CCI Enterprise) is subdivided into four and six themes, respectively. These themes were designed to address specific competencies outlined within the EntreComp framework.

4.3.1 Ideas and Opportunities

Considering the main competencies referring to the group *Ideas & Opportunities*, as identified by the EntreComp framework, the FENICE project’s course includes

Key area	Competences
Ideas & Opportunities	Spotting opportunities Creativity Vision Valuing ideas Ethical & sustainable thinking
Resources	Self-awareness & self-efficacy Motivation & perseverance Mobilizing resources Financial & economic literacy Mobilizing others
Into Action	Taking the initiative Planning & management Coping with uncertainty, ambiguity & risk Working with others Learning through experience

Source: [10].

Table 1.
EntreComp key areas and competences.

specific content themes that foster *spotting opportunities*, *creativity*, *valuing ideas*, and *ethical & sustainable thinking* competencies.

Students and adult learners are prompted to *spot opportunities* to create value *via* a deep understanding of the CCIs' social, cultural, and economic landscape, its cross-sectoral collaborations, and the potential market reach of the CCIs (theme 'Understanding CCIs'), thus being qualified to imaginatively identify needs and challenges still unmet within the cultural and creative sector.

Creativity is key for learners to envision viable solutions, thus developing value-creation ideas that effectively respond to the needs and challenges of the cultural and creative sector. In a theme entitled 'Creativity, Innovation and Cultural Content', the nature of the creative process is explored, including particular vocations that make the fabric of the CCIs team, as well as trends, knowledge, and resources that underpin innovative approaches in the cultural field.

This theme is also intertwined with the sub-topic 'Accountability and Ethical Behavior', pertaining to both legal frameworks and unwritten norms of the sector and corporate social responsibility issues. For this reason, *ethical & sustainable thinking*, guided not only by the tenet of acting responsibly but also by that of sustainability (*via* the assessment of the consequences and impact of ideas, opportunities, and actions on the target community, the market, society, and the environment), is also considered to be fostered alongside creativity. In fact, *ethical & sustainable thinking* is not exclusive to Unit 1 but is also promoted in all activities about the challenge of modeling a CCI business (Unit 2).

Lastly, *valuing ideas* involves the recognition of the potential an idea has for creating value—in social, cultural, and economic terms—and identifying suitable ways of making the most out of it, being students oriented toward the understanding of the contemporary challenges of a value-oriented approach to the design of products and services in the CCIs. A theme entitled 'Towards value: Economic, Market and Cultural valuation of products and services in the CCIs' was specifically designed to this end, emphasizing the differences between cultural value and economic value as socially constructed measures.

Although not connected to a single topic, vision, as the work toward one's vision of the future, involves nurturing learners' ability to envision a clear and compelling future scenario for their entrepreneurial endeavors. Creative exercises such as vision boards, storytelling, and mind mapping can help students visualize their future goals and understand more clearly how to turn ideas into action. This may be achieved by regularly scheduling reflection sessions where learners review their progress and refine their vision, getting feedback from peers, mentors, and instructors.

4.3.2 Resources

Regarding the main competencies listed under the area *Resources* within the EntreComp framework, the FENICE's course contents envision the development of *mobilizing resources*, *financial & economic literacy*, and *mobilizing others*.

In this course, students and adult learners are prompted to *mobilize* a diverse array of material, nonmaterial, and digital resources essential for turning ideas into action. This mobilization is facilitated by a deeper understanding of cultural policies, including their institutional, administrative, operative, and contextual aspects. Within Unit 1, this theme is further complemented by an exploration of intellectual property issues within the CCIs, focusing on designs, copyright, and related rights.

Additionally, the course addresses the importance of understanding basic concepts of new media and creative technologies, as well as the challenges associated with channels, formats, and delivery methods.

Unit 2's theme, 'Financing, Opportunities and Risks', emphasizes different financing instruments relevant to the development stages of a business venture in the cultural and creative sector, thereby contributing to *mobilizing resources*. Besides essential resources, launching a new business venture also requires the *mobilization of others* by obtaining the necessary support and instigating stakeholders' enthusiasm for the business idea. This competence is addressed through the development of effective communication, persuasion, negotiation, and leadership skills, particularly emphasized in Unit 2's first theme: 'Designing a business for the CCIs: preparing a business plan and pitching business ideas'.

Financial & economic literacy encompasses the ability to assess/estimate the cost of transforming an idea into a value-generating venture, ensuring its sustainability over the long term. It also involves the capacity to plan, execute, and evaluate financial decisions effectively. To this end, the course dedicates a theme ('Financing, Opportunities, and Risks') to addressing topics such as financial sustainability, access to financial resources, and associated risks and opportunities.

Apart from content-related activities, *self-awareness & self-efficacy*, as well as *motivation & perseverance*, are indirectly fostered through transversal activities within the teaching program. Students are encouraged to maintain reflective journals where they regularly document their thoughts, feelings, challenges, and successes, which are meant to help them understand their strengths, weaknesses, and areas for improvement. Additionally, self-assessment tools and personality tests may be implemented to assist students in better understanding their behavioral tendencies and how these may impact their entrepreneurial activities. Furthermore, students can be paired with mentors who provide guidance and feedback. These mentors, who may be guest speakers or successful entrepreneurs in the CCIs, also present case studies or share personal stories, focusing on their journeys, challenges, and strategies for overcoming obstacles.

4.3.3 Into Action

Considering the main competencies associated with *Into Action*, as identified by EntreComp, the proposed course seeks to promote: *planning & management, coping with uncertainty, ambiguity & risk, working with others, and learning through experience*.

Planning & management involves the ability to establish long-, medium- and short-term goals, define priorities and action plans, and adapt to unforeseen changes. Although learners may gain a complete understanding of these challenges only through practical entrepreneurial experiences, themes such as 'Designing a business for the CCIs: preparing a business plan and pitching business ideas' aim to offer students and adult learners a structured roadman to systematize a new business idea, delineate operational and financial objectives, and assess business viability. This competence is further developed within the scope of Unit 2, with the themes 'Market, Competition, Consumption and Branding in CCIs (defining target markets, customer acquisition, and communicating the business proposition to establish a competitive advantage over competitors. It also addresses brand management and branding strategies), 'Business models, systems, and partnerships' (rationale of how an enterprise creates, delivers, and captures value while contacting with renowned business model frameworks), and 'Management: team and change management in the CCIs'

(overview of the management process, considering the specificities of enterprises within the CCIs, and covering aspects from planning to organizing, staffing, leadership, and control).

Students are also encouraged to *cope with uncertainty, ambiguity, and risk* by gaining awareness of how to make decisions amidst uncertain circumstances or the potential for unintended outcomes. This involves recognizing the necessity to promptly and flexibly manage change. Students are also urged to embrace the practice of testing ideas and prototypes from early stages to mitigate the risks of failure. One of the primary tools contributing to this skill set is the preparation of a business plan, which facilitates decision-making across various scenarios and potential outcomes. In addition, a sub-topic exploring ‘Change management in the CCIs’ is integrated into the curriculum, addressing the rapidly evolving landscape within the CCIs, driven by factors such as digitalization and globalization.

Working with others is closely related to learners’ ability to *mobilize resources* and *mobilize others*, namely by working together and cooperating to develop ideas and put them into practice. Two themes within the course curriculum were specifically designed to cultivate this competence: ‘Business models, systems, and partnerships’ (that emphasizes the importance of partnerships and community cooperation within the CCIs; it explores the social, inclusive, and innovative aspects of CCIs, highlighting cross-sectoral collaborations and networking opportunities) and ‘Management: team and change management in the CCIs’ (focused on building and managing work teams, conflict management, and leadership skills in the dynamic landscape of the CCIs). Additionally, a theme was tailored specifically for adult learners, entitled ‘Entrepreneurship, Management, and Leadership in the CCIs’. This theme references the role of incubators, clusters, and creative partnerships at both the community and regional levels, as well as the specifics of managing and leading cultural and creative teams.

In the light of the rationale underlying the design of this course, both in terms of program content and delivery/teaching methods, *learning through experience* is considered a transversally developed competence. Particularly within Unit 2, the course adopts a learning-by-doing, action-oriented approach that aligns with teaching techniques aimed at stimulating learners’ activity, motivation, and participation. This approach is in line with challenge-based [25] or problem-based methodologies [26].

Not only are these competencies promoted through a teaching-learning approach to various themes and corresponding program contents, but also through the application of an active pedagogy paradigm. Various teaching strategies have been equated, including activities with peer-evaluation feedback, group projects, competition simulations, and guest lectures featuring entrepreneurs and mentors from the CCIs. These strategies allow students to learn collaboratively with peers and mentors, as well as to reflect and learn from both their own and others’ successes and failures. Such strategies also contribute to the development of other competencies, such as *working with others*, *coping with uncertainty, ambiguity & risk*, or *valuing ideas*. In fact, the FENICE project makes use of a variety of teaching, learning, and assessment methods, tailored to the needs of the students and the learning objectives, in line with the principles of experiential and active learning [27–30].

Besides the competencies which are specifically addressed by content themes within the course, not connected to a single topic, *taking the initiative* is associated with several activities. Not only students are assigned to real-world projects in which they take the initiative in identifying and tackling a problem or opportunity

within the CCIs, but taking part in challenges or competitions can also help students to proactively come up with innovative solutions within a limited timeframe. In classroom context, assigning (and rotating) leadership roles in group projects, gives each student the opportunity to lead, make decisions, and take initiative in managing project activities.

Indeed, these competencies can be interpreted as achieved learning outcomes, validated through the learner's autonomous application of knowledge and skills in practical, societal, and professional contexts. Learning outcomes are validated by their alignment with competencies, which serve as benchmarks for assessing the learner's proficiency and capability in specific areas. As learners demonstrate their ability to effectively apply acquired knowledge and skills in real-world scenarios, they validate the attainment of learning outcomes and, consequently, competencies.

4.4 Assessing entrepreneurial competences

Experiential learning methods can enhance entrepreneurial and managerial abilities within the CCIs, thereby fostering the sustainable growth and operation of the creative economy [30]. Therefore, the teaching and learning approaches employed in this course are grounded in experiential learning principles [27]. Some principles that characterize the experiential learning model include active learning [31], autonomous student work, flexible learning pathways, and a diversity of assessment methods, among others. These principles ensure that teaching, learning, and assessment processes are aligned with student learning outcomes and needs. Active learning fosters the development of higher-order cognitive skills among students, as they actively engage in participatory learning processes. To this end, the role of teachers evolves from the traditional approach of imparting knowledge to guiding students through their learning journey and assuming the role of facilitators [32]. This shift empowers students to take ownership of their learning and encourages independent thinking and problem-solving skills crucial for success in the dynamic landscape of the CCIs.

Assessing competencies is vital for recognizing the achievement of learning outcomes within a particular program. Following the conclusion of a learning process, whether formal, informal, or a combination of both, individuals may demonstrate acquired knowledge, skills, and competencies [11]. These learning outcomes become tangible through assessment processes and/or specific tasks aimed at showcasing the acquired learning. Hence, ensuring alignment between learning outcomes, teaching and learning strategies, and assessment methods is crucial.

In assessing entrepreneurial competencies, the assessment process was designed to align with the progression levels identified in the EntreComp framework [10]. The framework delineates eight progression levels, ranging from foundation to intermediate, advanced, and expert levels [10]. Each learning outcome is mapped from the most basic to advanced progression levels to support the development and growth of entrepreneurial capacity. It is essential to consider the progression of learners over time, recognizing their diverse starting points and designing a coherent entrepreneurship skills pathway. This mapping ensures that learners' growth and development of entrepreneurial competencies are effectively monitored and supported throughout their learning journey.

The assessment process incorporated into the courses developed within the FENICE project encompasses the following assessment methods to achieve the defined learning outcomes:

- *Individual/group e-portfolios of case studies of CCI firms*: Learners will develop an e-portfolio to engage in the research process within the field of CCIs. The e-portfolio will feature a detailed case study of CCIs, grounded in a real-world scenario encountered by a real firm.
- *Individual project (business plan)*: Learners are tasked with formulating and presenting an individual project for an existing or hypothetical firm. The presentation can take various formats, such as pitching, moot presentations, or autoscropy. Self and peer-assessment processes will be implemented to evaluate individual performance.
- *Unit and final exams*: At the end of each unit or at the end of the course, learners may undergo examinations to assess their knowledge and skills. The exam format can include diverse question types, including multiple-choice questions, open-ended questions, or the analysis of case studies, tailored to the proficiency level of the trainees, ranging from foundational to advanced levels or practice-oriented training.

In summary, both problem and project-based learning (PBL) and challenge-based learning are educational approaches deemed suitable for fostering entrepreneurship education [25, 26]. These methodologies provide meaningful opportunities for the development and assessment of entrepreneurial competencies. By engaging learners in real-world problems or challenges, PBL and challenge-based learning enable them to apply their knowledge and skills in practical contexts, fostering the development of entrepreneurial mindset and competencies [33, 34].

5. Conclusions

This chapter addresses the application of entrepreneurial education in the CCIs, focusing on the use of the European Entrepreneurship Competence Framework (EntreComp) to design teaching programs for the cultural and creative sector and develop an entrepreneurial mindset.

Entrepreneurship has emerged as a recognized field of knowledge and one of the fundamental pillars of education. However, there is a growing recognition of the need for deeper understanding and more extensive research into the teaching and application of entrepreneurship, particularly within the context of CCIs. Encouraging entrepreneurial education not only facilitates more comprehensive interdisciplinary learning but also nurtures crucial entrepreneurial skills necessary for success. Enhancing the competitiveness of CCIs within national economies requires not only the promotion of investment projects and the innovation and internationalization of cultural and creative activities but also the development of human capital. By adopting experiential learning approaches, entrepreneurship education provides students with a practical understanding of entrepreneurship and its real-world applications. This methodology helps students cultivate essential skills such as creativity, autonomy, critical thinking, problem-solving, decision-making, self-awareness, and collaboration.

The CCIs are content, knowledge-intensive, and technology-driven industries that require interdisciplinary research and education. However, there are persistent skills gaps in the sector, particularly with regard to entrepreneurship [6]. Primarily

driven by creative talent, the cultural and creative sectors are predominantly made up of micro, small, and medium-sized enterprises, as well as independent entrepreneurs. These sectors heavily rely on freelance workers who often engage in informal networks to exchange creative ideas. Despite the presence of highly skilled human resources, there is still a need to enhance entrepreneurship and business skills within the creative and cultural sectors. The diverse and dispersed nature of activities within the CCIs contributes to its ongoing consolidation process. However, this diversity does not diminish the significant economic relevance and employment opportunities generated by the CCIs, which continue to grow in the European context. Nevertheless, a considerable portion of the creative industries still lack consolidation and rely heavily on government support, both financially and administratively. Public institutions play a significant role in providing contracts and support to sustain these sectors [6, 35].

The FENICE Erasmus+ Project aims to offer a focused understanding of the operations of the cultural and creative sector by addressing practical and pertinent issues relevant to creative businesses and entrepreneurs. This initiative holds significant potential for the development of entrepreneurial competencies within the CCIs. By viewing entrepreneurship as a transversal competence, the EntreComp framework emerges as a valuable conceptual model. It provides a structured approach to customize entrepreneurial learning outcomes for the unique context of the cultural and creative sector, facilitating the design of teaching and learning activities that promote entrepreneurial competencies, as well as the development of assessment methods for entrepreneurial learning.

Entrepreneurial learning outcomes serve as a valuable guide for outlining and assessing students' progress. By clearly defining these outcomes, students gain a better understanding of the goals they need to achieve, as well as the standards, methods, and evaluation criteria that will be used to assess their achievements. This transparency in learning objectives empowers students to strive toward their goals more effectively and efficiently. Moreover, the dissemination of learning outcomes ensures that students are well-informed about the skills and competencies they are expected to develop.

EntreComp plays a crucial role in this process by providing a framework for defining and understanding entrepreneurial competencies. By aligning with EntreComp, educational programs can equip students with specialized managerial skills relevant to CCIs, while also promoting their entrepreneurial talents. Additionally, EntreComp fosters students' ability to collaborate and work effectively in interdisciplinary teams within the cultural and creative context, thereby preparing them for the realities of the contemporary cultural and economic realities. For instance, engaging in activities such as developing a business plan within an experiential learning environment encourages students to gain insights into management principles and techniques, as well as project and company management specific to CCIs. This hands-on approach not only enhances their entrepreneurial abilities but also equips them with practical skills for navigating the complexities of the creative industries.

This chapter contributes to a deeper understanding of the potential of entrepreneurship education to foster an entrepreneurial mindset, with a specific focus on the key entrepreneurial competencies outlined in the EntreComp framework. Future research should aim to further empirically investigate the development of an entrepreneurial mindset using the EntreComp framework, particularly in the context of implementing courses such as those offered by the FENICE project and other entrepreneurship programs in higher education. Empirical studies could examine the

effectiveness of these courses in enhancing students' entrepreneurial competencies and mindset, providing valuable data on the impact of entrepreneurship education initiatives. By assessing the development of entrepreneurial competencies among learners enrolled in these programs, researchers can gain a deeper understanding of the practical outcomes and effectiveness of entrepreneurship education in fostering an entrepreneurial mindset. One limitation of this study is its reliance on the experience of curriculum design within the scope of the FENICE project without empirical data to assess the actual development of entrepreneurial competencies among learners. Future research may address this limitation by conducting empirical studies to evaluate the impact of entrepreneurship education initiatives on the development of an entrepreneurial mindset in the CCIs.

Acknowledgements

This work was supported by the UIDB/05105/2020 Program Contract, funded by national funds through the FCT I.P.

The FENICE project (Fostering Entrepreneurship and Innovation in Cultural and Creative Industries through Interdisciplinary Education) was funded by Erasmus+, grant number Grant Agreement No. 2020-1-BG01-KA203-079193.

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