

FROM PERIPHERAL TO CORE: ENTREPRENEURSHIP EDUCATION IN THE CREATIVE INDUSTRIES

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Abstract

The European Union identifies entrepreneurship as a key competence for lifelong learning. However, across Europe's creative industries, including games, animation, and visual effects (VFX), graduates often complete their education with limited exposure to this competence, despite the prevalence of non-standard employment structures in these sectors. This study examined how entrepreneurship is perceived and integrated within higher education in the creative industries. Using thematic analysis of semi-structured interviews with 40 industry professionals, educators, and students, this study examined the perceptions, current practices, and barriers to implementing entrepreneurship education in games, animation, and VFX. The findings demonstrated that participants perceived entrepreneurial education as a vital competence in the creative sectors, particularly given the prevalence of freelance careers. However, its integration was affected by a combination of structural and cultural constraints, including the prioritisation of employability-driven metrics, curriculum overload, conflicts between entrepreneurial and creative values, and gaps in faculty expertise. Despite this, participants noted initiatives that can support entrepreneurship education, including using micro-credential models and reframing entrepreneurship to align with creative practice. Together, these findings highlight the importance of entrepreneurial competencies, the barriers to its integration, and the pathways through which higher education can better prepare graduates for careers in games, animation, and VFX.

Keywords: *Entrepreneurship education, entrepreneurial mindset, creative industries, games, animation, VFX.*

1. Introduction

Entrepreneurship has been identified as an important competence for navigating the increasing complexities of the global economy, characterised by rapid technological advances and expanding cross-sectoral collaborations (Mahmudin, 2023). In such conditions, professionals are required not only to possess sector-specific expertise but also the capacity to identify opportunities, adapt to change, manage risks, and implement innovative solutions in professional environments (Park & Kim, 2025; Corrêa & Jardim, 2025). Recognising these demands, several policy frameworks have been established, with the European Union, for example, identifying entrepreneurship as one of the eight Key Competences for Lifelong Learning. Within this policy framework, entrepreneurship is defined as “you act[ing] upon opportunities and ideas and transform[ing] them into value for others. The value that is created can be financial, cultural, or social” (Bacigalupo et al., 2016, p. 10). As such, this definition moves beyond the narrow association of entrepreneurship with start-ups and describes it as a multifaceted construct spanning personal development, employment, and self-employment pathways (Bacigalupo et al., 2016).

However, despite such policy recommendations, effectively integrating entrepreneurship education in formal education remains challenging due to a combination of conceptual, pedagogical, and institutional constraints. Specifically, research has highlighted the absence of a shared conceptual understanding of entrepreneurship, limited faculty expertise, and a lack of standardised teaching approaches, all of which can weaken teaching provisions. These challenges are compounded by curriculum overload within already intensive programmes, resource and funding limitations, and institutional resistance to pedagogical innovation, which further restricts effective integration (Fayolle & Gailly, 2008; Uddin et al., 2024; Mapanga & Faleni, 2025). Conventional teaching approaches may also prioritise theoretical or specialist knowledge over practical entrepreneurial skills, and even when implemented, entrepreneurship education is often offered as an optional or elective module (Corrêa & Jardim, 2025;

Mapanga & Faleni, 2025). Collectively, these factors position entrepreneurship as supplementary rather than integral to formal curricula.

The need for entrepreneurship education alongside creative and technical development is particularly pronounced in the creative industries, including games, animation, and visual effects (VFX), which operate within highly competitive and saturated job markets (Daniel & Daniel, 2015; Hassreiter et al., 2024). Employment in these sectors is frequently non-standard, encompassing self-employment, freelance roles, temporary contracts, part-time work, and project-based arrangements (IDEA Consult et al., 2021). In 2022, nearly 78% of the creative industry workforce in Europe was employed by micro-enterprises, with only 3.9% in large enterprises (Eurostat, 2025). Similarly, approximately 80% of game development companies have fewer than 10 employees (Laaninen & Wessman, 2023; Ecorys & KEA, 2023). Consequently, many small creative teams must compete directly with larger enterprises, intensifying the need for entrepreneurial capacity.

These employment structures emphasise the importance for creative industry professionals to balance artistic and technical expertise with financial and marketing skills (Koch et al., 2023), and to possess entrepreneurial capabilities such as opportunity recognition, negotiation, collaboration, network management, financial oversight, pricing, and risk management (Bacigalupo et al., 2016). Together, these factors underscore the importance of embedding business literacy and entrepreneurial competencies into creative curricula alongside technical skills (Laaninen & Wessman, 2023; Ecorys & KEA, 2023).

While entrepreneurship education is vital to the creative sectors, there is currently limited understanding of how the industry and educational institutions perceive its importance, and of the feasibility of integrating it into existing programme structures. This study aims to examine how entrepreneurship is perceived, how it may be integrated, and the potential challenges associated with integrating it within games, animation, and VFX curricula in Europe. In doing so, this study aims to understand the extent to which educational practices address entrepreneurial skill needs, in line with sector needs and EU policy.

2. Methods

This study is part of the PANEURAMA project (<https://www.paneurama.eu/>). Data collection involved semi-structured interviews with 40 participants comprising students and educators from higher education institutions (37%), and senior and junior industry professionals (63%) across the games, animation, and VFX sectors in 12 European countries (Hassreiter et al., 2025). Interviews lasted approximately 60 minutes each, were conducted online, and explored participants' perceptions of entrepreneurship and the opportunities and challenges associated with integrating entrepreneurship education into creative curricula. The semi-structured format allowed participants to share their experiences and perspectives in their own words, while ensuring that key themes relevant to the study's aims were systematically addressed. All participants provided written informed consent prior to their interviews, and the sampling method was purposive.

Interviews were transcribed verbatim using notta.ai to ensure accuracy and completeness of the data. Thematic analysis was employed to identify recurring patterns and themes within the interview data (Braun & Clarke, 2022). Data analysis was conducted using Atlas.ti qualitative data analysis software. Coding was performed by the second author, with codes systematically grouped into broader themes aligned with the study aims. This approach ensured that interpretations remained grounded in participants' statements while enabling analysis of the data.

To enhance the contextual relevance of the findings, preliminary results were presented at international conferences and panel discussions involving educators, students, and industry professionals across Europe, including FMX in Germany and MIFA in July 2025. These dissemination activities provided opportunities for refinement and contextualisation of the themes, helping to ensure that the interpretations reflected the diverse perspectives of the study participants.

3. Findings

Thematic analysis of the data identified three themes showing how entrepreneurship is perceived and the extent to which it is integrated within games, animation, and VFX education. Participants' conceptualisation of entrepreneurship extended beyond commercial gains to encompass a "mindset" towards taking initiative and having a sense of agency over realising ideas, which is needed to navigate the non-standard, freelance trajectories prevalent in these sectors. Participants also highlighted structural institutional constraints that limit the effective integration of entrepreneurship, and educational practices that could support its integration within creative curricula.

3.1. The importance and conceptualisation of entrepreneurship

This theme captures participants' perceptions of the importance of entrepreneurship and how it is conceptualised in relation to employment structures within the games, animation, and VFX sectors. The importance of entrepreneurship was highlighted by several participants, with one emphasising business literacy, stating: *"if we want influence in the world as artists, we need to understand what is business. And we need to have the business heart. We need to have the business soul."* The emphasis on having a *"business heart"* and *"business soul"* demonstrates the depth of importance placed on business understanding as a vital competency within creative industry education.

The importance of entrepreneurship was also linked to the realities of employment structures within the creative industries, particularly the prevalence of freelance work. Freelancing was described as a common early-career employment trajectory as a consequence of the limited availability of junior positions. One participant described this by stating: *"in general, I think people usually were forced to become freelancers right after university because not a lot of studios did hire junior people or graduates. [...] So you cannot go to the safety net of a company."* In this context, freelancing is not associated with voluntarily pursuing an entrepreneurial career, but rather a response to job market conditions. This causes creative industry professionals engaging with entrepreneurial practices early in their careers to sustain employment, which one participant described, stating: *"you are becoming a legal entity as a freelance artist, which is a company."* Compounding this need for business and commercial literacy, freelance career trajectories also place importance in understanding the *"basics of marketing, even if it is just the marketing of themselves,"* alongside practical entrepreneurship skills such as planning for irregular work patterns: *"you have to plan for holidays and for times when there is no job... talking about marketing for freelancers, how you market yourself, how you find jobs."* In this sense, entrepreneurship within these sectors also encompasses understanding practical elements such as self-presentation and management, and preparing for financial uncertainty.

Finally, the conceptualisation of entrepreneurship extended towards a *"mindset"* associated with taking initiative and having a sense of agency in realising ideas. One participant articulated this by stating: *"it's more about introducing the mindset: you have an idea, you have a purpose or a drive, and then you find a way to make it happen. For me, entrepreneurship isn't just about making a profit [...]. It's about getting something done."* This introduces another aspect of what encompasses entrepreneurship in the creative industries, which includes a way of thinking and translating creative ideas into concrete outcomes.

Taken together, this theme demonstrates that entrepreneurship is perceived to be vital within the creative industries due to the prevalence of freelance work. It is not merely conceptualised as the creation of a business, but as a mindset and skill set encompassing initiative-taking, self- and financial management, business literacy, and the willingness to make creative ideas happen. As such, entrepreneurship appears to be a vital competence for navigating creative careers.

3.2. Systemic constraints and cultural barriers

This theme discusses the influence of a range of factors extending from systemic institutional issues to attitudes towards business engagement that can impede the effective integration of entrepreneurship within the curricula of games, animation, and VFX.

In relation to systemic factors, participants described how employability outcome metrics are not tailored towards career trajectories within the creative sectors. One participant stated: *"so that metric which will go to be the main metric [...] is the same across any training provider. [...] the list that they've got of what they perceive as a graduate level job completely ignore arts subjects. They're not seen as anything that's important. So it's a problem..."* This highlights a limitation in the way graduate outcome metrics are designed and used. According to participants, these metrics do not appear to recognise creative-industry roles, which may influence survey outcomes and have implications for educational institutions. Consequently, some higher education institutions may be driven towards tailoring employability support to align with indicators reflected in graduate outcome surveys. One participant described this process, stating: *"universities are trying to make sure that students are absolutely happy... but also that they can work around this graduate outcomes survey. The employability team provided basic training... how to pass a job interview like it's an exam... No actual education in terms of what the industry... might want to go in, what their options are... [Staff were] dedicated to... coaching them [students] for the graduate outcome survey... ensuring that whatever students reported would technically fall under one of those categories... to make sure the rankings get bumped up."* This demonstrates how educational institutions may prioritise metric-driven outcomes, with potentially limited focus given to preparing graduates for the realities of working within the sector.

Curriculum overload was also identified as an issue, with one participant stating: *"the tricky part is fitting that [entrepreneurship education] into an already bloated curriculum. There's so much I want to teach, but I can't keep adding more because there's just no time. Plus, students often want to just focus on*

their projects...”. This demonstrates that while teaching staff recognise the importance of entrepreneurship, curricula may not allow sufficient space for its inclusion. Therefore, educational institutions working towards curricula reforms should perhaps also address how entrepreneurship education can be integrated. Moreover, as illustrated by the quotes, students may also prioritise production work, possibly due to not recognising the longer-term career sustainability implications that an entrepreneurial understanding might offer. Alongside this, an expertise gap among educators could further hamper the effective integration of entrepreneurship education. This was described as follows: *“a lot depends on the teaching team behind each course. The entrepreneurial push really hinges on the profiles and experience of the instructors. So there’s definitely still a clear need to upskill teachers to help foster that mindset more consistently.”* This suggests that integrating entrepreneurship education is contingent on the backgrounds of teaching staff. Another issue associated with entrepreneurship education relates to conflicts around artistic values and being business-oriented. One participant described this by stating: *“I think the art people maybe are the most difficult ones, because quite often there is that ‘we make art, not money’, some kind of thinking. [...] But I think this resistance is a global issue. We’ve been struggling with this a lot.”* This demonstrates how personal values may influence willingness to engage with entrepreneurship among some students and professionals in these creative sectors.

Together, these accounts demonstrate how a mix of structural factors, including graduate outcome metrics, curriculum constraints, student prioritisation of production work, staff expertise gaps, and cultural values, may influence the feasibility of integrating entrepreneurship within creative industry education.

4. Institutional responses and initiatives to address gaps

This theme discusses both operational and potential educational institutional initiatives that could support the integration of entrepreneurship within creative curricula. Participants described a range of initiatives already in place within some institutions. One such example was the embedding of entrepreneurship as an institution level performance indicator. Supporting this, one participant noted: *“we did receive this one project funding [...] to build more entrepreneurship [...] Now we have it in our university strategy, entrepreneurship is written there and there are KPIs related to entrepreneurship in management level.”* This demonstrates institution-level changes, suggesting that entrepreneurship is being recognised at a strategic level. Such embedding may facilitate curriculum updates and help address related challenges, including staff upskilling and student engagement with entrepreneurship education.

In addition, formal and informal educational structures were also referenced. One example was a minor in entrepreneurship: *“the minor entrepreneurship is for fourth year students and there we have students in from all the programs and also a bit from outside the university. About 40-50 students together... Some are just an idea phase, some already started something. They work every week daily together, then you get better connections.”* This is an example showing how integrating entrepreneurship as a minor can function to engage with it without replacing core programme content. Alongside this, participants also referred to tailored support linked to innovation or project-based courses. One described institutional support for innovation projects, stating: *“we have these innovation projects and when they have finished it and came up with a good project... we help them to do that. That’s a bit more tailored service for them.”* This highlights how targeted guidance can be provided to students whose work shows potential for further development, supporting entrepreneurship through project continuation rather than standalone modules.

In addition to existing initiatives, participants discussed potential approaches for strengthening the integration of entrepreneurship education. One such approach involved reframing how entrepreneurship is conceptualised within the creative industries. One participant stated: *“we need to stop talking about this as only important for a startup... We need a vocabulary for something like art entrepreneurship. It’s a different thing.”* This suggests that reframing entrepreneurship in ways that align more closely with creative practice may support its integration within curricula. Such reframing could potentially address conflicts between artistic values and business-oriented thinking (discussed in the previous theme). This may also contribute to a shared understanding of what entrepreneurship education in the creative sectors entails.

Additionally, participants acknowledged micro-credentials as possible routes for introducing additional competencies within already packed curricula. One participant noted: *“[Our country] is actually kind of leading in Europe when it comes to micro-credentials... reskilling, retraining, and staying adaptable moving forward.”* While the implementation of such models may depend on institutional approval processes and the availability of resources (e.g., both staff and funding), they may offer an option for integrating entrepreneurship education without restructuring full programmes. Finally, participants also acknowledged the value of four-year undergraduate programmes, which they perceived as offering greater flexibility than shorter programmes. While packed curricula were identified as an issue (in the previous theme), participants acknowledged how longer programmes could potentially allow space to integrate competencies such as entrepreneurship (alongside core disciplinary content). Acknowledging this, one

participant stated: “one of the advantages we have at the undergraduate level is that our programs are four years long... That really gives us the space to focus not only on core disciplinary learning but also on broader educational opportunities.” Although updating curricula to include new content may still require navigating institutional approval processes, this indicates a degree of openness among teaching staff towards broader forms of integration. Together, these accounts demonstrate both existing practices and potential institutional pathways through which entrepreneurship education is, and could be, integrated within games, animation, and VFX education.

5. Conclusion

This study explored how entrepreneurship is perceived and integrated within higher education, particularly in relation to potential constraints in the games, animation, and VFX sectors. Our findings suggest that entrepreneurship is regarded as a vital competence in these creative fields, with participants conceptualising it as encompassing business literacy, a mindset oriented towards taking initiative, and self-management. Its importance was particularly emphasised in the context of freelance careers, which are common in these sectors. Several constraints to effectively integrating entrepreneurship were identified. These included institutions prioritising short-term gains reflected in graduate outcome metrics, curricula overload, tensions between entrepreneurial approaches and creative values, and gaps in teaching staff experience. Despite these challenges, the data also highlighted institutional practices and potential initiatives to support entrepreneurship education. Together, these findings demonstrate both the relevance of entrepreneurial education for creative careers and the factors that shape how it can be implemented within higher education.

References

- Bacigalupo, M., Kampylis, P., Punie, Y., & Van den Brande, G. (2016). *EntreComp: The entrepreneurship competence framework*. Luxembourg: Publications Office of the European Union.
- Braun, V., & Clarke, V. (2022). *Thematic analysis: A practical guide*. London: SAGE Publications Ltd.
- Corrêa, S. R. dos S., & Jardim, J. (2025). Education: Transforming challenges into opportunities for inclusion, innovation, and social impact. *Administrative Sciences*, 16(1), 6.
- Daniel, R., & Daniel, L. (2015). Success in the creative industries: the push for enterprising and entrepreneurial skills. *Journal of Australian Studies*, 39(3), 411–424.
- Ecorys. (2023). *Understanding the value of a European video games society: Final report*. Luxembourg: Publications Office of the European Union.
- Eurostat. (2025). Culture statistics - cultural enterprises. Retrieved February 8, 2026, from https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Culture_statistics_-_cultural_enterprises
- Fayolle, A., & Gailly, B. (2008). From craft to science: Teaching models and learning processes in entrepreneurship education. *Journal of European Industrial Training*, 32(7), 569–593.
- Hassreiter, S., Haggis-Burridge, M., Clavero, T., & Bouwels, L. (2024). *Work environment dynamics and soft skills in animation, games, and VFX industries*. Brussels: PANEURAMA.
- Hassreiter, S., Haggis-Burridge, M., Clavero, T., Bouwels, L., & Perera, A. T. (2025). *Entrepreneurship and innovation in the European animation, games, and VFX industries*. Brussels: PANEURAMA.
- IDEA Consult, Goethe-Institut, Amann, S., & Heinsius, J. (2021). *Research for CULT Committee: Cultural and creative sectors in post-Covid-19 Europe: crisis effects and policy recommendations*. Brussels: European Parliament, Policy Department for Structural and Cohesion Policies.
- Koch, F., Hoellen, M., Konrad, E. D., & Kock, A. (2023). Innovation in the creative industries: Linking the founder's creative and business orientation to innovation outcomes. *Creativity and Innovation Management*, 32(2), 281–297.
- Laaninen, T., & Wessman, T. (2023). *Developing the video games and esports sector in the EU*. Brussels: European Parliamentary Research Service.
- Mahmudin, T. (2023). The importance of entrepreneurship education in preparing the young generation to face global economic challenges. *Journal of Contemporary Administration and Management (ADMAN)*, 1(3), 187–192.
- Mapanga, A., & Faleni, N. (2025). Integrating entrepreneurship education into STEM curricula in global South higher education institutions. *Discover Education*, 4(1), 335.
- Park, J.-H., & Kim, S.-J. (2025). Entrepreneurial competencies in the era of digital transformation: A systematic literature review. *Digital*, 5(4), 46.
- Uddin, M., Bal, H., & Hoque, N. (2025). Paving the way towards effective entrepreneurship education in private higher educational institutions in emerging economy: An analysis of barriers and strategies. *Sustainable Futures*, 10, 101027.