



Integrating Entrepreneurial Competences in Higher Education Curricula

Webinar summary

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On **April 23, 2025**, the **Community for Educational Innovation (CEI)** hosted the webinar **“Integrating Entrepreneurial Competences in Higher Education Curricula”**. The event explored how entrepreneurial competences—such as creativity, problem-solving, risk management, and opportunity recognition—can be systematically integrated into higher education programmes. Featuring three expert speakers, the webinar aimed to provide actionable insights into the role of education in shaping entrepreneurial mindsets, designing effective curricula, and preparing students for a rapidly evolving workforce.

This summary report synthesises the key insights shared during the event, providing an overview of the presentations, a holistic set of key takeaways, and an outline of the upcoming activities.

Presentation 1: Role of Education in Entrepreneurial Intentions of Students: GUESSS Research

Prof. Dr. Ana Tomovska Misoska, University of American College Skopje, North Macedonia.

The first presentation, by Prof. Tomovska Misoska, provided a comprehensive analysis of the **Global University Entrepreneurial Spirit Students’ Survey (GUESSS)**. This large-scale international survey explores the entrepreneurial intentions of university students and the impact of **educational experiences** on these intentions. Prof. Tomovska Misoska shared data from the **GUESSS** study, which covers **57 countries** (in 2023) and seeks to understand how **university environments, curricula, and extracurricular activities** influence students' aspirations to become entrepreneurs.

Key Insights from GUESSS Research

- **Entrepreneurial Intentions as Predictors of Entrepreneurial Behaviour:** Prof. Tomovska Misoska explained that entrepreneurial intentions are one of the most reliable predictors of future entrepreneurial behaviour. Based on **Ajzen's Theory of Planned Behaviour (1991)**, the research shows that **entrepreneurial intentions** directly influence whether students eventually start their own businesses. The intentions are formed by three key beliefs: **behavioural beliefs** (self-efficacy), **normative beliefs** (perceived social support), and **control beliefs** (perceived control over resources).

- **Direct and Indirect Influence of Education:** Prof. Tomovska Misoska discussed how **entrepreneurial education** not only influences students' entrepreneurial intentions directly, but also indirectly through the effect on other variables. The influence is also not only through formal curricula, but also by fostering a **supportive university environment**. This environment includes factors such as **peer interactions, role models, and mentorship opportunities**. These influences are often just as significant as formal education in shaping entrepreneurial intentions.
- **Global Trends and Regional Variations:** The data from GUESSS revealed that, globally, only **15.7% of students** express a desire to become entrepreneurs immediately after graduation. However, this number rises significantly after five years, reaching **33% globally**. In the Balkans, this pattern is even more pronounced. For instance, **42% of students in North Macedonia** plan to start a business five years post-graduation, which is higher than the global average. Prof. Tomovska Misoska noted that the Balkan region, with its transition from planned to market economies, shows an especially high level of entrepreneurial intent.
- **Entrepreneurial Education and Regional Context:** Prof. Tomovska Misoska's focus on the Balkan region highlighted the necessity of tailored educational strategies. In countries like North Macedonia, where entrepreneurship is a relatively new concept, the educational systems must not only provide students with technical and managerial knowledge but also foster a cultural shift towards entrepreneurship. This can be achieved through **curricular adjustments, business modules, incubator programmes**, and the integration of **experiential learning** opportunities.

Key Takeaways

- **Curricular Adaptation to Entrepreneurial Needs:** Higher education systems must **adapt curricula** to incorporate **entrepreneurial competences** such as **innovation, risk-taking, and creativity** across all study fields. Universities must focus on more than just theoretical knowledge and integrate **real-world entrepreneurial experiences**.
- **Experiential Learning:** Entrepreneurship cannot be taught solely through lectures; students need **hands-on experiences** such as internships, **startup incubators**, and **collaborations with industry** to fully develop entrepreneurial competences.
- **Supportive University Environment:** Universities should create an **entrepreneurial ecosystem** where students have access to **mentorship**,

networks, and **role models**. Universities should build partnerships with **businesses** and **entrepreneurial hubs** to provide students with the tools and opportunities to realise their entrepreneurial potential.

Presentation 2: Building Innovative and Entrepreneurial Mindsets at JYU

Reija Häkkinen, Career Specialist, University of Jyväskylä, Finland.

Reija Häkkinen shared the entrepreneurial education model at the University of Jyväskylä (JYU) in Finland. The **JYU model** is designed to foster an **entrepreneurial mindset** among students, regardless of their academic discipline. Häkkinen's model integrates **entrepreneurship education** across all academic fields, with an emphasis on **experiential learning**, **interdisciplinary collaboration**, and **support for innovation**.

The JYU Model of Entrepreneurship Education

- **Three-Tier Model:** JYU's entrepreneurship education is structured around a **three-tier model**:
 1. **Tier 1 (Information):** This phase focuses on raising awareness about entrepreneurship, helping students recognise its relevance to various career paths. It includes introductory courses and information sessions about the skills required to become an entrepreneur.
 2. **Tier 2 (Innovation):** In this phase, students begin developing their entrepreneurial ideas. They participate in **project-based learning**, where they collaborate with peers and industry professionals to create and refine business ideas.
 3. **Tier 3 (Integration):** The final tier focuses on helping students **commercialise their ideas**. This phase includes opportunities to pitch ideas to industry professionals, get **feedback**, and develop their ventures further through **business incubators**.
- **Collaborative Ecosystem:** One of the strengths of the JYU model is the emphasis on **collaboration with external stakeholders**, including **businesses**, **local governments**, and **entrepreneurial networks**. This **collaborative ecosystem** provides students with the opportunity to work on **real-world challenges** and access **business networks** that can help them turn their ideas into viable businesses.
- **Cross-Disciplinary Approach:** The model integrates **entrepreneurial competences** across all academic programmes. Whether a student is

studying **engineering, arts, or health sciences**, they are encouraged to apply **entrepreneurial thinking** and **innovative problem-solving** in their respective fields. Häkkinen emphasised the importance of **interdisciplinary projects**, where students from different faculties collaborate to develop entrepreneurial solutions.

Key Takeaways

- **Embedding Entrepreneurial Competences Across Disciplines:** Universities must adopt a **cross-disciplinary approach** to entrepreneurship education, ensuring that **all students**, regardless of their field of study, develop entrepreneurial competences that will benefit them in their future careers.
- **Fostering Innovation Through Collaboration:** Creating a **collaborative ecosystem** that connects students with external stakeholders, such as **entrepreneurs, incubators, and business mentors**, is crucial for enabling students to bring their ideas to market.
- **Experiential Learning:** The emphasis on **experiential learning** is vital for students to develop practical entrepreneurial skills. Hands-on opportunities, such as working in **incubators** or engaging in **entrepreneurial projects**, allow students to apply theoretical knowledge in real-world settings.

Presentation 3: Designing Effective Entrepreneurial Education

Prof. Dr. Bart Derre, HOGENT University of Applied Sciences and Arts, Belgium.

Prof. Derre focused on the **design** of **effective entrepreneurial education**, presenting a **design science approach** to creating entrepreneurial curricula. Prof. Derre's approach advocates for **intentional design** that aligns **educational objectives** with **student needs** and **real-world applications**. His model incorporates **evidence-based design** and encourages educators to continuously iterate on their teaching practices.

Design Science and Entrepreneurial Education

- **Design Science Approach to Entrepreneurial Education:** Prof. Derre explained that **entrepreneurial education** must be approached as a **design challenge**. Educators should not simply "deliver" a pre-existing curriculum; instead, they must design **educational experiences** that **stimulate entrepreneurial behaviour** and are aligned with **specific learning goals**. He referred to **Herbert Simon's Science of the Artificial**, which frames education as a **design science**, where educators are the designers of learning experiences that are intentionally constructed to meet specific outcomes.

- **Entrepreneurial Educational Method (EEM):** Prof. Derre shared the **Entrepreneurial Educational Method (EEM)**, a structured approach to designing entrepreneurial curricula. The EEM model focuses on creating **authentic learning environments** that simulate real-world entrepreneurial challenges. It encourages educators to incorporate **activity-based learning**, where students work on **problem-solving tasks, idea generation**, and **business development**.
- **Contextualisation and Intentionality in Education:** Prof. Derre emphasised the importance of **contextualisation** and **intentionality** when designing entrepreneurial education. Educators must tailor their teaching strategies to the **specific needs** of their students and their respective academic contexts. Additionally, each learning activity must have a clear **purpose** and should be designed to **stimulate entrepreneurial thinking** in students.

Key Takeaways

- **Holistic Design Approach:** Prof. Derre concluded that effective entrepreneurial education requires a **holistic design approach**. This involves aligning **learning objectives, teaching strategies**, and **assessment methods** to create meaningful learning experiences for students.
- **Empowering Educators as Designers:** Educators must be empowered to design their own **context-specific** entrepreneurial education programmes. They should have the freedom and support to **experiment** with different pedagogical methods and tailor them to the needs of their students and institutions.
- **Data-Driven Feedback:** Continuous **assessment and feedback** are necessary to evaluate the effectiveness of entrepreneurial education. Educators should regularly gather **data** on student progress and make adjustments to ensure that the learning objectives are met.

Discussion and Key Takeaways

The webinar highlighted several important themes and actionable insights regarding the integration of entrepreneurial competences into higher education curricula. Below are the key takeaways that emerged from the presentations and discussions:

- **Cross-Disciplinary Integration:** Entrepreneurial competences should be embedded across all disciplines, not just in business programmes. This

ensures that all students develop essential skills like **creativity**, **problem-solving**, and **innovation**, which are valuable in any career.

- **Experiential Learning: Hands-on experiences** such as **incubators**, **internships**, **hackathons**, and **real-world projects** are crucial for students to apply entrepreneurial knowledge and develop practical skills.
- **Collaboration with Business Ecosystems:** Strong partnerships with **businesses**, **entrepreneurs**, and **incubators** are essential. These collaborations provide students with **mentorship**, **networking opportunities**, and **real-world challenges** to foster entrepreneurial thinking.
- **Empowering Educators as Designers:** Educators must be empowered to **design their own entrepreneurial education** programmes tailored to their students' needs. This requires providing them with **resources**, **support**, and **professional development**.
- **Supportive University Environment:** Universities should create **entrepreneurial ecosystems** that promote **innovation** and **creativity**. This includes providing students with **mentorship**, **role models**, and **networking opportunities** that encourage entrepreneurial ventures.
- **Pedagogical Flexibility: Flexible teaching methods** such as **flipped classrooms**, **project-based learning**, and **digital tools** should be used to engage students and meet their diverse learning needs.
- **Measuring Entrepreneurial Learning Outcomes:** Universities should adopt **data-driven methods** to assess **entrepreneurial competences** and ensure that their educational interventions are effective in developing the necessary skills.
- **Entrepreneurship for Non-Business Students:** Entrepreneurial competences should be integrated into all study programmes, ensuring that students from fields such as **engineering**, **health sciences**, and **social sciences** also develop entrepreneurial thinking.

Upcoming Activities

Several key activities were announced to continue the work of integrating entrepreneurial competences into higher education:

- **Collection of Good Practices:** Universities are invited to submit **good practices** on how they are integrating entrepreneurial competences into curricula. These practices will be featured in the **CEI report on Thematic**

Strand 1, providing valuable insights for future educational reforms. [Submit your good practices here](#)

- **Upcoming Webinar on Support Services for Student Entrepreneurship:** The next webinar on **May 19, 2025**, will focus on how incubators, mentorship, and student entrepreneurship centres can support students in developing their ventures. [Register here.](#)
- **Study Visit on Entrepreneurial Skills and Mindsets:** A **study visit** will be organised in **June 2025** to explore good practices in developing entrepreneurial skills across educational institutions.

