

# **FORMATION OF ENTREPRENEURIAL COMPETENCES WITHIN EDUCATIONAL INSTITUTIONS IN EUROPEAN COUNTRIES**

**Natalia VINOGRADOVA**

*PhD., associate researcher*

*National Institute for Economic Research*

*Republic of Moldova*

[natalia.vinogradova01@gmail.com](mailto:natalia.vinogradova01@gmail.com)

## **Abstract**

*The object of this article is entrepreneurial competences, which represent a combination of skills and abilities that are formed in the learning process and subsequently allow successfully working in any field of activity. The article defines the main characteristics of entrepreneurial competences in researches and European documents. Some aspects of the formation of entrepreneurial competences in practice within educational institutions, in particular, the methods of teaching entrepreneurship courses, have been described.*

**Keywords:** Republic of Moldova, entrepreneurship competence, entrepreneurship learning.

**JEL Classification:** I23, M29.

## **Introduction**

In economically developed countries, the formation of entrepreneurial competencies is an important area of study at different educational levels. Since the beginning of the 2000s, EU countries have been searching for methods of educating young people on entrepreneurship and instilling entrepreneurial thinking.

Back in 1986, in his book “Innovation and entrepreneurship: Practice and principles”, Peter Drucker disagreed with the widespread attitude towards entrepreneurship as a sacrament, gift, talent or “flash of genius”, he wrote that entrepreneurship is systematic work that can be learned (Drucker, 1986, p.vi). Currently, entrepreneurship training is based on the formation of a wide range of qualities and competencies that form the basis of the character and personality of the entrepreneur, i.e. used competence-based approach.

### **Literature review**

*The concepts of ‘competence’ and ‘competency’.* In research, there are two related terms: ‘competency’ and ‘competence’. Competency is more often understood as the totality of knowledge, specific skills that are formed in the learning process for successful activities in a particular field. Competence is the ability to carry out real actions leading to a certain result.

According to S. Mitchelmore and J. Rowley (Mitchelmore and Rowley, 2010, p. 92-111), the term ‘competency’ began to be used in the United States in the 1970s, when the idea of competencies was put forward by the American Management Association as a tool for identifying manager traits to achieve outstanding results.

While the use of the term ‘competence’ is typical of the UK: in 1990, the state-funded organization Management Charter Initiative published the Management Standards - the ‘competence framework’, which was used for various professions.

According to the definition adopted by the European Commission in 2008, ‘competence’ means the proven ability to use knowledge, skills and personal, social and/or methodological abilities, in work or study situations and in professional and personal development (European Parliament and the Council, 2008).

It should be noted that in literature there is no uniformity in the use of the above terms. Many studies use these terms as synonyms. For example, in articles (Gianesini et al., 2018, p.13-32 ) and (Lizote et al., 2018, p. 197-209), despite the difference in the terms used ("competence" and "competency"), the subject of research is the same: observable and measurable attitudes and skills.

Another example of interchangeability of terms: in (Pantea et al., 2014, p.229) the term ‘competency’ is used to list competencies for lifelong learning, although reference is made to Recommendation of the European Parliament and of the Council of 23 April 2008 ‘on the establishment of the European Qualifications Framework for lifelong learning’, in which another term - ‘competence’ - is used. In this article, the term ‘competence (-y)’ will be used primarily to refer to a set of skills and abilities that are formed in the learning process, as well as subsequently allowing active, creative and successful work in any field of activity.

## **Main characteristics of entrepreneurial competences in foreign studies and European documents**

The first attempts to study entrepreneurial competences have been undertaken since the 60s of the XX century. So, during a large-scale cross-cultural study conducted by the United States Agency for International Development (USAID) (Mansfield et al., 1987), a set of competences of highly successful entrepreneurs was compiled: 1) Competence of achievement (initiative, sees and uses opportunities, concern for high quality work, obligations under the contract, focus on efficiency). 2) Competence of thinking and problem solving (systematic planning, problem solving). 3) Directivity and control (perseverance, control). 4) Orientation to others (recognition of the importance of business relationships).

Bengt Johannsson, who is a well-known theorist in entrepreneurial education and a laureate of the Global Award for Entrepreneurship Research (2008), has identified five competences that are important for an entrepreneur. In his opinion, it is necessary: (i) to understand why a person wants to do this (“know why”); (ii) be able to do this (“know how”); (iii) understand who it is important to interact with in order for the business to be successful (“know who”); (iv) have a good intuition, that is, feel when you need to start your own business (“know when”); and finally (v) have knowledge on the topic of business (“know what”) (Johannsson, 1991). A survey of 100 leading US entrepreneurs (Hood and Young, 1993) allowed to make a list of the most important skills for entrepreneurs: leadership skills, management skills, deal making skills, logical thinking, analytical skills, decision making skills, goal setting skills, hiring skills and preparing a business plan.

J.Robert Baum identified eight entrepreneurial competences: knowledge, cognitive abilities, self-management, managerial abilities, decision-making skills, leadership, recognition of opportunities and development of opportunities (Baum, 1994). The OECD study (Lackeus, 2015) compiled a list (frame) of entrepreneurial competences based on a synthesis of the results of other studies on this topic (Table 1). In accordance with the above classification, entrepreneurial competencies are divided into 3 groups: knowledge, skills and attitudes. At the same time, entrepreneurial competencies are divided into cognitive (i.e., based on intellectual abilities that are easy to study and evaluate) and non-cognitive (requiring first-hand learning, difficult to evaluate). According to the OECD, the modern education

system, including entrepreneurship training, focuses on cognitive competencies, which leads to a reduction in the curriculum, assessment of knowledge through testing and a decrease in the professionalism of teachers. At the same time, according to many researchers, non-cognitive competencies influence the future results of students, including in the labor market, even more than cognitive competences.

The entrepreneurial competencies presented in the upper rows of the Table 1 relate to cognitive competencies, and in the lower rows - to non-cognitive competencies.

**Table 1. Entrepreneurial competencies, highlighted by OECD, and their relation to cognitive and non-cognitive competencies**

	<b>Main theme</b>	<b>Sub themes</b>	<b>OECD interpretation</b>
<b>Cognitive competencies</b>	Knowledge	Mental models	Knowledge about how to get things done without resources, Risk and probability models
		Declarative knowledge	Basics of entrepreneurship, value creation, idea generation, opportunities, accounting, finance, technology, marketing, risk, etc.
		Self-insight	Knowledge of personal fit with being an entrepreneur / being entrepreneurial
	Skills	Marketing skills	Conducting market research, Assessing the marketplace, Marketing products and services, Persuasion, Getting people excited about your ideas, Dealing with customers, Communicating a vision
		Resource skills	Creating a business plan, Creating a financial plan, Obtaining financing, Securing access to resources
		Opportunity skills	Recognizing and acting on business opportunities and other kinds of opportunities, Product / service / concept development skills
		Interpersonal skills	Leadership, Motivating others, Managing people, Listening, Resolving conflict, Socializing
		Learning skills	Active learning, Adapting to new situations, coping with uncertainty
		Strategic skills	Setting priorities (goal setting) and focusing on goals, Defining a vision, Developing a strategy, Identifying strategic partners
<b>Non-cognitive competencies</b>	Attitudes	Entrepreneurial passion	"I want". Need for achievement.
		Self-efficacy	"I can". Belief in one's ability to perform certain tasks successfully.
		Entrepreneurial identity	"I am / I value". Deep beliefs, Role identity, Values.
		Proactiveness	"I do". Action-oriented, Initiator, Proactive.
		Uncertainty / ambiguity tolerance	"I dare". Comfortable with uncertainty and ambiguity, Adaptable, Open to surprises.
		Innovativeness	"I create". Novel thoughts / actions, Unpredictable, Radical change, Innovative, Visionary, Creative, Rule breaker
		Perseverance	"I overcome". Ability to overcome adverse circumstances.

Source: (Lackeus, 2015)

In the official EU regulatory documents, competences for learning, including entrepreneurial competences, have been reflected since 2006.

In 2006, Recommendation of the European Parliament and of the Council of 18 December 2006 on key competences for lifelong learning (2006/962/EC) was published, the purpose of which was to identify and define the key competencies necessary for ‘personal fulfillment and development, active citizenship, social inclusion and employment’ (European Parliament and the Council, 2006). The Reference Framework sets out eight key competences:

- 1) Communication in the mother tongue;
- 2) Communication in foreign languages;
- 3) Mathematical competence and basic competences in science and technology;
- 4) Digital competence;
- 5) Learning to learn;
- 6) Social and civic competences;
- 7) Sense of initiative and entrepreneurship;
- 8) Cultural awareness and expression.

Entrepreneurial competence, namely 'Sense of initiative and entrepreneurship', according to this Recommendation, refers to an individual's ability to turn ideas into action. It includes creativity, innovation and risk-taking, as well as the ability to plan and manage projects in order to achieve objectives. This supports individuals, not only in their everyday lives at home and in society, but also in the workplace in being aware of the context of their work and being able to seize opportunities, and is a foundation for more specific skills and knowledge needed by those establishing or contributing to social or commercial activity.

In order to define and describe entrepreneurship as competence, to develop a reference framework and describe its components in terms of knowledge, skills and attitudes, as well as provide European citizens with appropriate tools for assessing and effectively developing this core competence, the Joint Research Center (JRC) of the EU, in 2015, introduced the Entrepreneurship Competence Framework, also known as EntreComp (Komarkova et al., 2015). EntreComp develops a conceptual approach and a common understanding of what sense of initiative and entrepreneurship and

entrepreneurial learning mean, thus supporting the development of entrepreneurial competences at European level.

In the context of EntreComp, entrepreneurial activity is an enterprising human action in pursuit of the generation of value, through the creation or expansion of economic activity, by identifying and exploiting new products, processes or markets. The value created in this way can be financial, cultural or social. It is important to note that the proposed definition places the main emphasis on value creation, regardless of its type or the context in which it is created.

EntreComp defines entrepreneurship as a cross-cutting competency applied in all areas of life: from caring for one's own development to active participation in society, entering the labor market as an employee or self-employed person, and also to the establishment of an enterprise (cultural, social or commercial one).

This concept is based on a broad definition of entrepreneurship, based on the creation of cultural, social or economic value. Thus, it covers various types of entrepreneurship, concerns individuals and groups; it is neutral in relation to areas of activity: any person can proceed from ideas and opportunities with the goal of generating value for others in any field of activity.

The EntreComp conceptual model consists of two main dimensions:

- 3 areas of competence that directly reflect the definition of entrepreneurship as the ability to turn ideas into actions that generate value for someone other than oneself: 'Ideas & Opportunities', 'Resources', 'Into action';
- 15 competences which, taken together, constitute the constructive elements of the entrepreneurial spirit as a competence for all citizens.

### **Training in entrepreneurial skills in practice**

After the European Parliament officially recognized in 2006 the importance of entrepreneurial competence (the spirit of initiative and entrepreneurship) as one of the key competences for lifelong learning (European Parliament and the Council, 2006), entrepreneurship researchers and practitioners teaching this discipline, the question arose of adjusting the methods of teaching entrepreneurship to develop entrepreneurial competences in their broad sense. Anthony Gribben, a leading specialist of the European Training Foundation, wrote in 2006: 'To date, there is no

evidence in partner countries of any strategic development of the wider concept of entrepreneurship in the learning systems. The issue, likewise, is barely addressed in the developed economies of the European Union. Given that the entrepreneurship core competence issue is such a new phenomenon part of the difficulty at this stage is that it is not that clear as to what needs to be taught and how it should be taught' (Gribben, 2006).

The degree of mastery of entrepreneurial competences and the effectiveness of training in entrepreneurship depends on the methods of training used. Studies show that the most popular in the field of entrepreneurship are such training methods as lectures, case-studies, project implementation (for example, creating business plans) and others (European Foundation for Management Development, 2008. p. 26; Lee and Wong, 2007). But the European Commission notes that such traditional educational methods as, for example, lectures do not correlate well with the development of entrepreneurial thinking (European Commission, 2008). In this regard, in addition to traditional teaching methods, interactive methods come to the fore, the main purpose of which is to increase the activity of participants in the educational process (Dermol, 2019). Today it is obvious that the active participation of students in the educational process increases their motivation and quality of education. In addition, the effectiveness of teaching increases significantly as the teacher ceases to be just a lecturer, but becomes a coach, trainer and moderator.

The Report of the European Commission (European Commission, 2008) contains examples of a large number of methods used for training entrepreneurship and developing entrepreneurial competences (Table 2).

**Table 2. Entrepreneurship teaching methods, used in EU**

<b>Experience-based teaching methods</b>	<b>Teaching on the basis of observations and examples</b>
Teaching in action	Meetings with real entrepreneurs
Imitation	Integration of literary works or cinema
Role-playing game	Integration of real life experience of teachers
Using personal instruction	Cases' discuss
Selfeducation	Use of real 'case studies'

<b>Experience-based teaching methods</b>	<b>Teaching on the basis of observations and examples</b>
Problem Based Learning	Inviting entrepreneurs as guest speakers
Distance learning	
Business Plan Competition	
Group techniques for creating new ideas	
Business Planning Workshops	

Source: Based on (European Commission, 2008)

One of the methods widely used to teach entrepreneurship is a qualitative method for studying phenomena based on specific practical situations - the case study method. The development of practical situations can occur in two ways: based on a description of real events and actions, or based on artificially constructed situations. The purpose of the case study method is to teach students to analyze information, identify key problems, choose alternative solutions, evaluate them, find the best option and formulate action programs. The method teaches students to solve complex unstructured problems that cannot be solved analytically. As a result of conducting an individual analysis, group discussion, identifying problems, finding alternatives, choosing actions and a plan for their implementation, students get the opportunity to develop analysis and planning skills. Also, this method allows the formation of special, methodological and communicative competencies among students in establishing intersubject communications, analytical and systemic thinking, evaluating alternatives, presenting the results of the analysis, assessing the consequences associated with decision-making, mastering communication and teamwork skills.

As part of the project to introduce the case study method in business training for students of universities in Poland and Lithuania, a survey of students was conducted. Of all the competencies obtained as a result of working on cases, students received the maximum scores: a better understanding of theory, involvement in the learning process (interest), development of analytical thinking, teamwork and a better understanding of business reality (Ammerman et al., 2012).

Examples of using interactive methods of teaching entrepreneurship when a teacher becomes a moderator rather than a lecturer are presented in Box1.

#### **Box 1. Case studies of interactive entrepreneurship education methods**

**In Denmark, the International Danish Entrepreneurship Academy (IDEA)** and its associated universities have organized more than 10 innovation camps, bringing together students, entrepreneurs and teachers in a single space for a limited time. Interdisciplinary groups of students worked on ideas from enterprises and solved problems.

**At the EPF School of Engineering in France**, 36 engineering students each year run a real company that designs, manufactures and sells pens. For a six-month period, each student gets a job in various departments of the company (financial, logistics, IT, etc.). Every year a new product is developed, and students must do everything possible to make the company grow.

*Source:* (European Commission, 2008)

#### **Conclusions**

At present, entrepreneurship education in EU countries is based on the formation of a wide range of skills and competences, which underlie the character and personality of the entrepreneur, i.e. the skills-based approach is used.

Entrepreneurial competence, namely 'Sense of initiative and entrepreneurship', is one of the eight key competences, defined by the European Parliament and Council Recommendation 2006/962/EC on key competences for lifelong learning.

There is no single list of entrepreneurial skills in foreign research. The Entrepreneurial Competence Framework (EntreComp), presented by the EU Joint Research Center in 2015, includes 15 competences that, taken together, constitute the constructive elements of entrepreneurship as a competence for all citizens: creativity, opportunity identification, self-efficacy, self-confidence, communication, leadership, decision making, innovation, responsibility, collaboration, ideas generation, problem-solving, autonomy, negotiation and networking.

The degree of training in entrepreneurial skills and the effectiveness of entrepreneurial education depend on the teaching methods used. The European Commission notes that traditional educational methods, such as lectures, do not correlate well with the development of entrepreneurial thinking. In this context, instead of traditional teaching methods, interactive methods are at the forefront.

### **References**

- [1]. AMMERMAN, P., GAWEŁ, A., PIETRZYKOWSKI, M., RAUKTIENĖ, R., WILLIAMSON T. (2012). The case study method in business education. Bogucki Wydawnictwo Naukowe, Poznań. P. 105-115.
- [2]. BAUM, J.R. (1994). The relationship of traits, competencies, motivation, strategy and structure to venture growth. University of Maryland, College Park.
- [3]. DERMOL, V. (2019). Development of Entrepreneurial Competences. IJEMS, 3(1). P.27-47. [Access 03.09.2019], [https://emuni.si/wp-content/uploads/2019/02/3\\_027-047.pdf](https://emuni.si/wp-content/uploads/2019/02/3_027-047.pdf)
- [4]. DRUCKER, P. F. (1986). Innovation and entrepreneurship: Practice and principles (Perennial Library ed.). New York: Harper & Row. P.vi.
- [5]. EUROPEAN COMMISSION. (2008). Entrepreneurship in higher education, especially within non-business studies. Final Report of the Expert Group. March. 69 p. [Access 10.10.2019], <http://ec.europa.eu/DocsRoom/documents/2214/attachments/1/translations/en/renditions/native>
- [6]. EUROPEAN FOUNDATION FOR MANAGEMENT DEVELOPMENT. (2008). Best Practices and Pedagogical Methods in Entrepreneurship Education in Europe. Project Quality of Entrepreneurship Programmes in Europe. p. 26.
- [7]. EUROPEAN PARLIAMENT and the COUNCIL. (2006). Recommendation of the European Parliament and of the Council of 18 December 2006 on key competences for lifelong learning (2006/962/EC) [Access 10.07.2019]: <https://eur-lex.europa.eu/legal-content/RO/TXT/?uri=celex:32006H0962>
- [8]. EUROPEAN PARLIAMENT and the COUNCIL. (2008). Recommendation of the European Parliament and of the Council of 23 April 2008 on the establishment of the European Qualifications

- Framework for lifelong learning, C 111/4. [Access 12.09.2019]: [https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32008H0506\(01\)&from=EN](https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32008H0506(01)&from=EN)
- [9]. GIANESINI, G., CUBICO, S., FAVRETTI, G., LEITÃO, J. (2018). Entrepreneurial Competences: Comparing and Contrasting Models and Taxonomies In book: Entrepreneurship and the Industry Life Cycle. SPRINGER, pp.13-32.
- [10]. GRIBBEN, A.A. (2006). Entrepreneurship Learning: Challenges And Opportunities. ETF, April. 14 p.
- [11]. HOOD, J., YOUNG, J. (1993). Entrepreneurship's requisite areas of development: a survey of top executives in entrepreneurial firms. In: Journal of Business Venturing, Vol. 8 No. 2. P. 115-135.
- [12]. JOHANNISSON, B. (1991). University training for entrepreneurship: Swedish approaches. In: Entrepreneurship & Regional Development: An International Journal, vol.3. P. 67-82
- [13]. KOMARKOVA, I., GAGLIARDI, D., CONRADS, J., COLLADO, A. (2015). Entrepreneurship Competence: An Overview of Existing Concepts, Policies and Initiatives. Report EUR 27472 EN. Joint Research Center. 162 p. [Access 10.07.2019]: [http://publications.europa.eu/resource/cellar/6e016026-77e8-11e5-86db-01aa75ed71a1.0001.01/DOC\\_1](http://publications.europa.eu/resource/cellar/6e016026-77e8-11e5-86db-01aa75ed71a1.0001.01/DOC_1)
- [14]. LACKEUS, M. (2015). Entrepreneurship in Education – What, Why, When, How. OECD. 45 p. [Access 07.06.2019]: [https://www.oecd.org/cfe/leed/BGP\\_Entrepreneurship-in-Education.pdf](https://www.oecd.org/cfe/leed/BGP_Entrepreneurship-in-Education.pdf)
- [15]. LEE, L., WONG, P. (2007). Entrepreneurship Education—A Compendium of Related Issue. In: Zoltan J. Acs & David B. Audretsch. International Handbook Series on Entrepreneurship. 3 (P. 79-105). The Life Cycle of Entrepreneurial Ventures. P. 79-105
- [16]. LIZOTE, S.A., VERDINELLI, M., NASCIMENTO, S., BERVIAN, L. (2018). Entrepreneurial Competencies and Performance of Undergraduate Programs. In: Journal of Education and Research in Accounting, v.12, n.2, pp. 197-209.
- [17]. MANSFIELD,R.S., MCCLELLAND,D.C, SPENCER,L.M., SANTIAGO,J. (1987). The Identification and Assessment of Competencies and Other Personal Characteristics of Entrepreneurs in

Developing Countries. Final Report: Project No.936-5314  
Entrepreneurship and Small Enterprise Development, Washington, DC:  
United States Agency for International Development.

- [18]. MITCHELMORE, S., ROWLEY, J. (2010). Entrepreneurial competencies: a literature review and development agenda. In: The International Journal of Entrepreneurial Behavior & Research, vol.16, no.2. P. 92-111
- [19]. PANTEA, M.-C.; DIROESCU, R.; PODLASEK-ZIEGLER, M. (2014). Young people, entrepreneurship and non-formal learning: A work in progress. SALTO-Youth Participation Resource Center, Brussels. P.229.