

**MENTAL ENLIGHTENMENT SCIENTIFIC –
METHODOLOGICAL JOURNAL****MENTAL ENLIGHTENMENT SCIENTIFIC –
METHODOLOGICAL JOURNAL**<http://mentaljournal-jspu.uz/index.php/mesmj/index>**CONTENT AND METHODOLOGICAL FOUNDATIONS FOR DEVELOPING
STARTUP PROJECT DESIGN COMPETENCE IN HIGHER EDUCATION BASED
ON THE “FROM IDEA TO PROJECT” PRINCIPLE****Orif Karimov***Jizzakh State Pedagogical University**Associate Professor (Docent)**E-mail address: orifkarimov2020@gmail.com**Jizzakh, Uzbekistan***ABOUT ARTICLE**

Key words: higher education, startup, startup project design competence, “from idea to project” principle, fundamentals of entrepreneurship, practical project, specialty courses, business model, MVP, spin-off enterprise, dual education, graduate employment.

Received: 05.08.26**Accepted:** 06.08.26**Published:** 07.08.26

Abstract: This article examines the content and methodological foundations for developing students' startup project design competence in higher education institutions. The study analyzes the issue of guiding students toward the development of practical projects based on the “from idea to project” principle. The article explains the formation of startup project design competence through a two-stage pedagogical model. At the first stage, it is proposed to integrate topics related to the development of practical projects and independent learning assignments into the content of selected specialty courses. Through this approach, students master the concept of a project, its stages, practical significance, and future prospects. At the second stage, the necessity of developing students' skills for systematic work on startup projects through the teaching of the course “Fundamentals of Entrepreneurship” is substantiated. Within the framework of this course, the article highlights opportunities for supporting students' startup projects, involving them in spin-off enterprises, and developing elements of dual education. In the study, startup project design competence is interpreted in relation to innovative thinking, business model development, MVP creation,

Introduction. In the context of globalization, the digital economy, and innovation-driven development, one of the key tasks facing the higher education system is to train competitive specialists who meet the demands of the labor market, think creatively, demonstrate initiative, are capable of developing practical projects, and can transform their professional knowledge into real economic activity. The modern higher education process should not be limited to providing students with theoretical knowledge. It should also guide them toward identifying urgent problems in society, production, education, services, and other sectors, proposing innovative solutions to these problems, developing practical projects, and transforming them into startup initiatives.

In the Republic of Uzbekistan, the modernization of higher education, the strengthening of integration among education, science, and production, the development of scientific and innovative activity, and the training of personnel in accordance with labor market needs have been defined as priority areas of state policy. In particular, the Concept for the Development of the Higher Education System of the Republic of Uzbekistan until 2030, approved by Decree No. PF-5847 of the President of the Republic of Uzbekistan dated October 8, 2019, is one of the important regulatory foundations that defines the tasks of adapting the content of higher education to the needs of economic sectors, training competitive personnel, and developing scientific and innovative activity [1]. This Concept gives particular importance to strengthening the integration of education, science, and production, increasing the practical effectiveness of higher education, and training personnel oriented toward innovative activity.

Furthermore, the “Uzbekistan — 2030” Strategy, approved by Decree No. PF-158 of the President of the Republic of Uzbekistan dated September 11, 2023, identifies the development of human capital, realization of young people’s potential, provision of quality education, employment, and increased economic activity as priority tasks [2]. These strategic goals reinforce the need to connect students’ professional knowledge in higher education with practical activity, entrepreneurial initiatives, and innovative projects.

State policy aimed at supporting youth entrepreneurship and ensuring youth employment also demonstrates the relevance of developing startup project design competence in higher education. In particular, Resolution No. PQ-60 of the President of the Republic of Uzbekistan dated February 14, 2025, “On Measures to Improve the System for Supporting Business Projects Aimed at Youth Entrepreneurship and Employment,” is an important

document focused on providing financial and organizational support for young people's business projects [3]. This resolution forms the necessary institutional basis for supporting youth business projects, startup initiatives, and employment-oriented projects.

In the presentation reviewed by the President of the Republic of Uzbekistan, Shavkat Mirziyoyev, on ensuring the employment of graduates of higher education institutions, it was noted that 320,000 students are expected to graduate from the country's higher education institutions in 2026. The importance of working individually with graduates, directing them to available vacancies, supporting entrepreneurial initiatives, and effectively using the opportunities of career centers was emphasized [5]. It was also determined that, starting from the 2026/2027 academic year, the course "Fundamentals of Entrepreneurship" will be introduced in all higher education institutions in order to develop students' entrepreneurial skills and familiarize them with existing opportunities for running a business.

The same presentation also advanced issues related to supporting students' startup projects, involving students in spin-off enterprises, opening departmental branches at relevant sectoral enterprises, expanding the practice of defending graduation projects at employer enterprises, and developing elements of dual education [5]. This shows that the development of startup project design competence in higher education is not only a pedagogical issue, but also a matter of socio-economic and practical significance.

From this perspective, it is necessary to develop a content and methodological model based on the "from idea to project" principle in order to develop students' startup project design competence in higher education. In this model, topics and independent learning assignments related to the development of practical projects are first integrated into the content of specialty courses. At the next stage, these practical project skills are developed in integration with the teaching of the course "Fundamentals of Entrepreneurship," support for startup projects, spin-off enterprises, and elements of dual education. This sequence forms the methodological basis of the "from idea to project" principle. This is because students first identify an initial idea, study it, develop it as a technological or practical solution, transform it into the form of a product or service, and analyze its commercialization potential.

Materials and methods. The article employed theoretical-analytical, comparative-pedagogical, content-modelling, and generalization methods. The theoretical basis of the study consisted of regulatory and legal documents related to the development of higher education, support for youth entrepreneurship, graduate employment, and the development of startup projects, as well as scientific and educational-methodological sources covering startup and business incubation processes.

Within the framework of the study, the development of startup project design competence was examined on the basis of a two-stage pedagogical model. At the first stage, the issue of integrating topics related to the development of practical projects and independent learning assignments into the curricula of selected specialty courses was studied. At the second stage, the possibilities of raising students' practical project development skills to the level of startup projects through the teaching of the course "Fundamentals of Entrepreneurship" were analyzed, along with directing students toward cooperation with spin-off enterprises, dual education, and the real sector.

In the article, "startup project design competence" is interpreted as a set of students' knowledge, skills, and abilities related to identifying a real problem, developing an innovative idea, creating a practical project, designing a business model, preparing a prototype or MVP, studying market needs, identifying funding sources, and presenting project outcomes. In this regard, approaches related to entrepreneurship education, experiential learning, project-based learning, and innovation-oriented education were adopted as the theoretical and methodological foundation.

Results and discussion. The results of the study show that the development of startup project design competence in higher education cannot be limited only to theoretical knowledge of entrepreneurship. A startup project begins with a student's ability to identify a real problem related to their field of specialization, propose a practical solution to it, and transform this solution into a project with economic or social value. Therefore, the close integration of specialty courses, the course "Fundamentals of Entrepreneurship," career centers, spin-off enterprises, and elements of dual education is of great importance in developing startup project design competence.

At the first stage, it is necessary to introduce topics related to the development of practical projects into the curricula of selected specialty courses. At this stage, students learn what a project is, its goals, objectives, components, implementation stages, required resources, expected outcomes, and future prospects. Independent learning assignments should also be organized not in the form of ordinary essays or theoretical information collection, but as small practical projects, problem analyses, project concepts, product or service ideas, or prototype descriptions.

This approach enables students to master their specialty courses not merely as a set of theoretical knowledge, but as a means of solving real-life problems. For example, in the field of technological education, students can be guided toward designing, producing, and marketing modern handicraft products. Today, as Uzbekistan is becoming increasingly open to the

international community and the flow of foreign tourists visiting the country is growing, the demand for unusual, aesthetically attractive, and practically useful products based on national handicrafts is increasing. From this perspective, students can develop souvenirs, decorative products, eco-friendly gifts, interior design items, and handicraft products for everyday use by combining national patterns, local materials, and modern design solutions. Such projects develop not only students' technological and creative skills, but also their competencies in product sales, market needs analysis, customer segmentation, and the organization of small entrepreneurial activity.

In the field of natural sciences, students can be involved in developing practical projects aimed at producing ecological products, effectively using biological resources, creating new plant varieties, and bringing them to the market. For example, startup projects can be formed around the production and sale of environmentally friendly fertilizers, biodegradable products, natural remedies based on medicinal plants, and ornamental or agricultural plant varieties adapted to local conditions. Such projects help students integrate natural science knowledge with practical production, ecological responsibility, innovative thinking, product development, market needs analysis, and small entrepreneurial activity.

In the fields of exact sciences and information technologies, students can be widely directed toward developing practical startup projects related to digitalization. In particular, mobile applications, electronic platforms, automated information systems, online services, and artificial intelligence-based solutions can be developed to digitalize processes in education, healthcare, agriculture, tourism, services, production, and management. Such projects develop students' competencies in algorithmic thinking, programming, data analysis, identifying user needs, creating digital products, and bringing them to the market. Platforms aimed at solving local problems through digital solutions, in particular, may become promising startup projects in the future.

At this stage, depending on the relevance, novelty, alignment with user needs, and economic or social effectiveness of a practical project, it can be further developed as a startup project at the next stage. Thus, project development skills formed within specialty courses are later enriched through the course "Fundamentals of Entrepreneurship" with processes related to business ideas, market needs, financing, and practical implementation.

At the second stage, students' initial skills in preparing practical projects are brought to the level of startup projects through the teaching of the course "Fundamentals of Entrepreneurship." This course should provide students with systematic knowledge of the essence of entrepreneurial activity, the differences between startups and traditional

businesses, business models, financial planning, market analysis, the use of grants and preferential loans, working with investors, and project presentation.

Startup project design competence can be defined as follows: startup project design competence is a set of students' knowledge, skills, and abilities related to identifying a real problem, developing an innovative solution, creating a practical project, designing a business model, preparing an MVP or prototype, analyzing market needs, validating project hypotheses, identifying funding sources, and presenting a startup project based on the "from idea to project" principle.

This definition shows that startup project design competence is not limited to mastering the theory of entrepreneurship. It connects the knowledge students acquire through specialty courses with real problems, practical projects, innovative solutions, business models, prototypes, spin-off enterprises, dual education, and employment opportunities. Therefore, this competence serves as an important outcome indicator that ensures the connection between theory and practice, science and production, idea and market, student initiative and socio-economic results in higher education.

A business model plays a particularly important role in the formation of a startup project. The Business Model Canvas is considered an important strategic tool for the systematic development of a startup [7]. Through this tool, students identify the customer segment, value proposition, sales channels, partners, key resources, costs, and revenue sources of their project. As a result, a startup idea does not remain at the level of an abstract proposal, but is transformed into a clearly structured business model [7; 8].

The Value Proposition Canvas also plays an important role in the startup project design process. This approach teaches students to develop a product or service not according to their own assumptions, but on the basis of users' needs, problems, and expectations [7]. This increases the alignment of the startup project with market needs.

The concept of MVP, or minimum viable product, is also an important component of startup project design competence. In the lean startup approach, an MVP is viewed as a tool for rapidly testing an idea, identifying user responses, and making further project decisions based on empirical evidence [8]. Through an MVP, students do not attempt to immediately turn their idea into a perfect product. Instead, they develop it in a simple, testable form that allows them to obtain user feedback.

Hypothesis validation is also an important methodological stage in working with a startup project. The initial business model is usually a hypothesis formed in the classroom. There is a possibility that the customer segment may be chosen incorrectly, sales channels may

be ineffective, or the value proposition may not correspond to market needs. Therefore, students need to learn to test their projects through surveys, interviews, test sales, user feedback, and small-scale experiments [8; 9].

In order for the content of the course “Fundamentals of Entrepreneurship” to contribute to the development of startup project design competence, it should be enriched with the following modules: the concept of startup and innovation; the “from idea to project” principle; differences between practical projects and startup projects; identification of real problems; creative thinking and design thinking; Business Model Canvas; value proposition and customer segment; MVP and prototype development; hypothesis validation; criteria for selecting startup projects; funding sources; participation in startup competitions; pitching and project presentation; cooperation with spin-off enterprises; integration of practice and production through dual education; and employment and job creation through startup projects.

Clear criteria are also necessary for evaluating startup projects. In F. Jabbarov’s “Training Program for Mentors of Business Incubators/Accelerators for Startup Development,” factors such as innovativeness, social impact, environmental impact, potential for job creation, gender equality, and regional relevance are identified as criteria for selecting successful startup ideas [6]. These criteria can also be applied in evaluating students’ projects in higher education. This helps students assess project outcomes not only in terms of economic benefit, but also in terms of their social, environmental, and employment-related impact.

Knowledge of startup project financing is also important in developing students’ entrepreneurial competence. The program identifies bank loans, grants, subsidies, direct investments by business enterprises, funds from family members and acquaintances, support from international financial institutions, crowdfunding, and business angels as sources of startup financing [6]. This information should be taught in the financial literacy modules of the course “Fundamentals of Entrepreneurship.”

Spin-off enterprises serve as an important practical platform for developing startup project design competence. Promising projects, technological solutions, digital products, or service models developed by students can be introduced into the real economic environment through the activities of spin-off enterprises. In this process, the higher education institution provides scientific-pedagogical, methodological, and organizational support, while the student gains the opportunity to transform their idea into a practical product or service.

Elements of dual education help connect students’ theoretical knowledge with practical activity in real production, services, or sectoral enterprises. If the course “Fundamentals of Entrepreneurship” is organized in integration with specialty courses, career centers, employer

enterprises, and dual education mechanisms, students' startup projects become closer to the needs of the real sector. This increases the practical value of the project and expands graduates' employment opportunities.

This course should be organized in cooperation with leading professors and teachers of departments, mentors with practical experience, entrepreneurs, career centers, business incubators, and employer organizations. This is because startup project design cannot be limited to theoretical lectures alone. It requires active methods such as small-group work, case analysis, team projects, business model development, prototyping, preparation for competitions, mentoring, and presentations before investors.

As a result of developing startup project design competence, students learn to identify problems in society and various sectors, think creatively, develop innovative solutions, transform ideas into practical projects and startup initiatives, search for financing opportunities, participate in competitions, and plan their future professional activities. Most importantly, such students are formed not as passive graduates waiting for ready-made jobs, but as active subjects capable of ensuring self-employment and creating jobs through their own ideas, projects, or small business initiatives.

Conclusion. Developing startup project design competence in higher education is currently an urgent pedagogical task directly related to education, employment, entrepreneurship, and the innovative economy. The rapid transformation of the labor market, the increasing number of graduates, and the need to enhance young people's economic activity require higher education institutions to systematically guide students toward working on startup projects.

As substantiated in the article, it is advisable to introduce a two-stage content and methodological model based on the "from idea to project" principle in order to develop startup project design competence. At the first stage, topics and independent learning assignments related to the development of practical projects are integrated into the curricula of selected specialty courses. Through this approach, students study the concept of a project, its stages, implementation mechanisms, practical significance, and future prospects.

At the second stage, students' practical project development skills are brought to the level of startup projects through the teaching of the course "Fundamentals of Entrepreneurship." Within this course, students acquire systematic knowledge and skills related to the concept of a startup, business models, value propositions, MVPs, hypothesis analysis, funding sources, startup competitions, pitching, spin-off enterprises, and opportunities for dual education.

Thus, teaching the course “Fundamentals of Entrepreneurship” in integration with specialty courses, mechanisms for supporting startup projects, spin-off enterprises, and elements of dual education develops students’ innovative thinking, entrepreneurial competence, ability to create practical projects, and readiness for self-employment. This approach contributes to increasing graduates’ adaptability to the labor market, developing youth entrepreneurship, creating new jobs through startup projects, and strengthening the integration of higher education with the innovative economy and production.

References:

[1] Decree No. PF-5847 of the President of the Republic of Uzbekistan dated October 8, 2019. “On Approval of the Concept for the Development of the Higher Education System of the Republic of Uzbekistan until 2030.”

[2] Decree No. PF-158 of the President of the Republic of Uzbekistan dated September 11, 2023. “On the ‘Uzbekistan — 2030’ Strategy.”

[3] Resolution No. PQ-60 of the President of the Republic of Uzbekistan dated February 14, 2025. “On Measures to Improve the System for Supporting Business Projects Aimed at Youth Entrepreneurship and Employment.”

[4] Official website of the President of the Republic of Uzbekistan. “Issues of Ensuring the Employment of Higher Education Institution Graduates Were Discussed.” June 8, 2026.

[5] Resolution No. 426 of the Cabinet of Ministers of the Republic of Uzbekistan dated July 10, 2025. “On Measures to Establish the Procedure for Supporting and Financing Business Projects Aimed at Youth Entrepreneurship and Employment.”

[6] Jabbarov, F. (2025). Training program for mentors of business incubators/accelerators for startup development. Ekvita Consulting; Sherikkon Consulting.

[7] Osterwalder, A., & Pigneur, Y. (2010). Business model generation: A handbook for visionaries, game changers, and challengers. John Wiley & Sons.

[8] Ries, E. (2011). The lean startup: How today’s entrepreneurs use continuous innovation to create radically successful businesses. Crown Business.

[9] Blank, S., & Dorf, B. (2012). The startup owner’s manual: The step-by-step guide for building a great company. K&S Ranch.

[10] Blank, S. (2013). Why the lean start-up changes everything. Harvard Business Review, 91(5), 63–72.

[11] Neck, H. M., Greene, P. G., & Brush, C. G. (2014). Teaching entrepreneurship: A practice-based approach. Edward Elgar Publishing.

[12] 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.

[13] Kuratko, D. F. (2005). The emergence of entrepreneurship education: Development, trends, and challenges. *Entrepreneurship Theory and Practice*, 29(5), 577–598.

[14] Gibb, A. (2002). In pursuit of a new enterprise and entrepreneurship paradigm for learning. *International Journal of Management Reviews*, 4(3), 233–269.

[15] Rasmussen, E. A., & Sørheim, R. (2006). Action-based entrepreneurship education. *Technovation*, 26(2), 185–194.