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# INNOVATIONS WITHIN THE EDUCATION SYSTEM IN THE CONTEXT OF THE ENTREPRENEURIAL MODEL OF TRAINING

## ABSTRACT

of a dissertation
for awarding the educational and scientific degree “doctor”
in the scientific specialty Economics and Management (Industry)

**Scientific supervisor:**
**Assoc. Prof. Dr. Iskra Panteleeva**

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The dissertation work has been discussed and proposed for defense in accordance with the Law on the Development of the Academic Staff in the Republic of Bulgaria and the Regulations for the Implementation of the Law on the Development of the Academic Staff in the D. A. Tsenov Academy of Economics, Svishtov, by the Department of Industrial Business and Entrepreneurship at the Faculty of Industry and Commerce at D. A. Tsenov Academy of Economics, Svishtov.

The author is a PhD student in a part-time mode of study at the Department of Industrial Business and Entrepreneurship at the D. A. Tsenov Academy of Economics, Svishtov.

The dissertation has a total volume of 227 pages and is structured in: introduction (7 pages), main text of three chapters (176 pages) and conclusion (3 pages). A declaration of originality and authenticity is provided. The applications, with a total volume of 20 pages, are 4 in number. The information in the dissertation is visualized in 65 figures and 13 tables. The list of used literature consists of 145 sources, of which 36 are in Latin and 119 are in Cyrillic.

The defense of the dissertation will take place on 13.12.2024, at 1:30 p.m., in the "Rectorate" Meeting Hall at the D. A. Tsenov Academy of Economics.

The defense materials are available to those interested in the Department of Doctoral Studies and Academic Advancement at the D. A. Tsenov Academy of Economics, Svishtov – https://www.uni-svishtov.bg/bg.

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# I. GENERAL CHARACTERISTICS OF THE DISSERTATION

## 1. Relevance and significance of the study

Education is a fundamental factor for the development of society and an invariable condition for increasing the economic capacity of the state. As a value system and a social institution, it provides knowledge, forms a worldview, educates an attitude towards the surrounding reality, builds characters and models behaviours. In the conditions of globalization and dynamic changes, education endures the external impacts of the environment, striving to satisfy the requirements of business and the expectations of society, to responsibly prepare the future workforce and to form highly qualified personnel.

The educational system implements constant changes through the implementation of innovative practices in the technology of the educational process, in traditional pedagogical approaches and techniques, in the ways of acquiring the necessary knowledge and skills, as well as in all other system components, striving to maintain and increase the quality of training and its results. The introduction of innovations has an impact on all participants in the educational system (teachers, professors, administrators, researchers, students, parents, etc.), while at the same time suffering their reverse influence, according to their degree of acceptance of innovative changes and the corresponding level of involvement in transformational processes. processes.

Innovations in the Bulgarian education system are an opportunity to build a democratic society with an active civic presence and competitive advantages based on cultural and historical identity. Innovation scales presuppose a favourable environment for the achievement of high results for all participants and at all levels in the system. Educational innovations cover diverse aspects of the educational process, aiming to improve both educational, organizational and methodical work, as well as improvement of personal relationships and ethical principles. Such a wide range of possible innovative changes is undoubtedly associated with an increase in the costs of maintaining innovative educational structures; for conducting additional trainings and subsequent upgrading of the qualifications of pedagogical and administrative personnel; for the introduction of new technologies, methods and techniques, with the potential to realize the desired educational mission. The overall transformation of education is closely related to increasing costs of innovation, but these costs should be seen as a justified investment in the future with long-term positive benefits and effects, not only within education.

The educational system concentrates its efforts in the construction of structural levels with a modern material and technical base, aimed at increasing the productivity of the educational process and improving cost effectiveness. In line with the changes in the needs of the society and their business projections, strategic documents are

developed, changes are made in the curricula and programs, the taught educational content is updated.

Bringing to the fore the need for a new competence profile and specific personal characteristics of those leaving the educational system requires a reorientation and refocusing of the system towards the acquisition of additional knowledge and skills, towards the formation of a specific personal model of behaviour and scope of career opportunities.

In accordance with the needs of society and the economy, of the participants in the educational system and of the users of educational products/services, the entrepreneurial learning model is one of the key innovative practices that integrates multi-directional possibilities for an adequate response to these needs and creates environment for the acquisition of key skills and competences, in harmony with modern conditions. The introduction of new methods and techniques in the context of entrepreneurship is a prerequisite for the construction of a modern educational system, for which quality is of priority importance.

The presented arguments reveal the importance and increasing relevance of the issues related to the perception of the entrepreneurial model of education, and are sufficient grounds for the importance and relevance of the issues considered in the dissertation work.

A number of authors focus on researching innovation and its impact on building an entrepreneurial culture. With a significant contribution in the field of innovation, entrepreneurship and the entrepreneurial learning model are foreign authors, such as: S. Ahmad, B. Johansson, P. Jones, P. Berry, D. Brandes, P. Guinness, R. Donkels, A. Fayol, D. Kolb, D. Kubry, E. Maslaviva, S. Shanes, A. Verbicki, S. Rogers, J. Fegre, F. Hunt, N. Peterman, D. Ray, J. Schumpeter, P. Drucker, J. Sweler, T. Green, et al. The role and importance of innovations in the context of entrepreneurial thinking and behavior is also considered by a large number of Bulgarian authors: A. Asenov, V. Panayotov, P Boyadzhiev, L. Varamezov, D. Vasilev, M. Velev, L. Kirev, I. Panteleeva, P. Kanev, V. Hristova, V. Georgieva, V. Grigorov, A. Krasteva, P. Malinov, V. Milenkova, D. Pavlov, S. Tasheva, D. Planinska, P. Radev, D. Sevdalinova, Ya. Totseva, G. Tsokov, R. Dragoeva, I. Varbanov, S. Ivanova, V. Karakova, I. Stamenova, Zh. Hristov and others. However, there is a lack of comprehensive research dedicated specifically to innovations in the educational system and in the context of the entrepreneurial learning model. The significance of the issue under consideration, as well as its insufficient development in theoretical terms and a more in-depth study of its empirical projections and manifestations, are the leading motive in choosing the topic of the dissertation work.

## 2. Object and subject of the study

**The object of research** is the innovations in the educational system of the Republic of Bulgaria, and **the subject of research is** the possibilities for improving

the educational system through the introduction/use of innovations based on the entrepreneurial model of education.

## 3. Research goal and objectives

**The aim** of the research is to explore the possibilities for improving the educational system through the introduction/use of innovations based on the entrepreneurial learning model.

To achieve the defined goal, the following **research tasks have been formulated:**

1. Theoretical research, systematization and analysis of scientific research in the field of the educational system, innovations and the entrepreneurial model of training (including the regulatory framework in the field of education).

2. Empirical research and analysis of the possibilities for increasing the quality of educational products/services in the education system in Bulgaria in the context of the entrepreneurial model of education.

3. Identification of the main problem areas, hindering the improvement of the system and the increase of quality and achieved results based on the entrepreneurial model of training.

4. Analysis and assessment of the potential opportunities for improvement of the educational system through the introduction/diffusion of innovations in the context of the entrepreneurial learning model.

5. Formulation of recommendations and specific proposals for improving the management of the educational system and increasing the quality of the offered educational products and services.

## 4. Research thesis

The research advocates **the thesis** that the integration of the entrepreneurial learning model as a set of educational innovations at the school, regional and national level provides real benefits from the formation and use of the entrepreneurial vision in the spirit of entrepreneurial thinking and behaviour in the Bulgarian education system.

## 5. Methodology and information provision of the research

### Research methodology

*The research approaches* used in the dissertation are: historical, descriptive, target, system, process, structural, functional, cluster approach. Two groups *of research methods* were used : theoretical (induction, deduction, formalization, analysis, synthesis, documentation, comparison, abstraction, concretization) and empirical (observation, interviewing, consulting, comparison, expert assessments, modelling, statistical analysis, etc.).

### Main sources of information

*The main sources of information* for developing the dissertation work are: specialized scientific literature; official information from the National Statistical

Institute (NSI); data from empirical studies with a theme and scope close to the present study; specialized periodical printing, brochures, catalogues; data from surveys, conducted interviews and consultations; information from observations and registration of statistical data; Internet sites and databases, etc. As part of the - empirical research conducted in the period 2022-2023, questionnaires from 1168 respondents were processed. In addition, over 200 interviews and consultations with participants in the education system covering all status groups were carried out .

**6. Research limitations**

The following limitations are introduced in the dissertation:

✓ *Limitations regarding the subject of research:* The entrepreneurial training model is examined from the positions of basic theoretical statements regarding the possibilities of its application and subsequent improvement, discussing the influence of various factors. The emphasis is placed on the identification of the set of factors and the outline of the main problems that Bulgarian education faces when introducing the entrepreneurial model of training in the Bulgarian education system.

✓*Limitations regarding the object of research:* Within the framework of the dissertation work, the specificity and diversity of innovations in the educational system are studied. The focus is on innovation related to the introduction and use of the entrepreneurial learning model. The relevant processes and activities in pre-school and higher education are outside the scope of the study. Within the framework of the empirical research, the set of respondents covers statistical units - representatives of various groups of persons who participate in and have an impact on innovative changes in the education system and the introduction/application of the entrepreneurial model - teachers, students, parents and administrative staff. The number of statistical units followed is sufficient (although not characterized by representativeness) to allow valid conclusions and generalizations to be made, on the basis of which recommendations and proposals can be formulated.

✓ *Limitation on study period*

The empirical study covers data for the period 2013 – 2022. For some indicators, data after 2010 are presented. The results reflect the practical dimensions of the state and dynamics in the processes and activities in the educational system related to the possibilities of applying the entrepreneurial learning model in the education system.

During the practical research, the following problems arose: difficulties in obtaining detailed official data from the NSI (due to confidentiality), through which the analysis of the researched issues could be deepened; difficult access to school documentation due to the reluctance of some of the management personnel of the studied educational units to provide the information necessary for the study;

reluctance of part of the researched management administrative staff to provide concrete answers to the questions asked.

The conducted study of the perspective of the entrepreneurial model of training in the context of the educational system and the reference to scientific sources gives reason to claim that the set topic is perceived as a constructive trend, which at the same time outlines the controversial interest in the entrepreneurial culture. Indisputable proof of the functionality of the entrepreneurial vision is the Entrepreneurship training. The issues of innovations in the educational system in the context of the entrepreneurial learning model are still not sufficiently studied in Bulgaria and there is a lack of in-depth empirical analyses, especially regarding the effects and cumulative benefits with a corresponding time lag.

**7. Dissertation research approval**

The dissertation work was discussed and directed for defense by the Department of Industrial Business and Entrepreneurship at the D. A. Tsenov Academy of Economics, Svishtov. On the topic of the dissertation, 3 articles and 3 reports were published in specialized publications. Parts of the dissertation work were presented at 2 doctoral sessions and 3 conferences, one of which was an external (outside the D. A. Tsenov Academy of Economics) conference.

## II. MAIN CONTENT OF THE DISSERTATION PAPER

Structurally, the dissertation consists of an introduction (7 pages), three chapters ( 176 pages), a conclusion (3 pages), a list of references (10 pages), and appendices (20 pages). In terms of content, the dissertation is structured as follows:

**List of tables**
**List of figures**
**List of applications**
**Terms and abbreviations**
**Introduction**
**Chapter I. ESSENCE, SPECIFICITY AND INTEGRATION OF INNOVATIONS IN THE EDUCATION SYSTEM**

1. The Bulgarian education system - functions and structure
   - 1.1 Nature and structure of the educational system
   - 1.2 Functions of the educational system
   - 1.3 Strategic framework
2. Specificity of innovations in the education system
   - 2.1 Nature and characteristics of educational innovations
   - 2.2 Role of the innovation process in education
   - 2.3 Innovative education and training
3. Integration of innovations in the field of education

## III. SYNTHESIZED EXPRESSION OF THE DISSERTATION

### Introduction

In the introductory part of the dissertation, the actuality and practical significance of the research is substantiated, the object, the subject, the goals, the tasks and the research thesis are defined. The methodology, the sources of information provision, the restrictive conditions, as well as some problems that arose during the practical research are presented.

## Chapter I. ESSENCE, SPECIFICITY AND INTEGRATION OF INNOVATIONS IN THE EDUCATION SYSTEM

The **first chapter** clarifies the theoretical basis related to the topic. The main concepts used in the dissertation are defined. The essence, functions and structure of the Bulgarian education system are presented in a systematized form. The specifics of innovations in the field of education are discussed, and an attempt is made to classify them. The innovation process in education, as well as the essential aspects and specifics of educational integration, are clarified. The chapter consists of three paragraphs in the following sequence:

### 1. The Bulgarian education system - functions and structure

The ***first paragraph*** clarifies the structure and functions of the educational - system, outlining its strategic framework.

In the conditions of a knowledge-based economy, the efforts of educational - policies are aimed at acquiring and developing individual competencies of the person. The centralized management model implemented in the education system has been imposed for decades by exercising control over all structural formations (Sevdalinova, diuu.bg). ***The Ministry of Education and Culture is a fundamental factor in the management of education (MOH, 2016), and the centralized management*** is carried out by the Regional Management Structures and is responsible for: development of educational standards; approving the learning content; organization of entrance exams for transition from one educational level to another; organization of national external evaluation; improvement of curricula and programs; development of rules and methodological requirements.

The Bulgarian education system guarantees successful personal and professional realization through the legislative framework, which focuses on early childhood inclusion (LPSE, 2016; MES, Strategic framework for the development of education, training and learning in the Republic of Bulgaria, 2021; MES, Strategy for educational work in educational institutions, 2019; Commission, Strategy for lifelong learning, 2021) and the structure of Bulgarian education (see Fig. 1) contributes to: the early integration of students and a smooth transition from family to school environment ; creating conditions

for lifelong learning; updating the curricula and programs; diffusion of educational innovations.

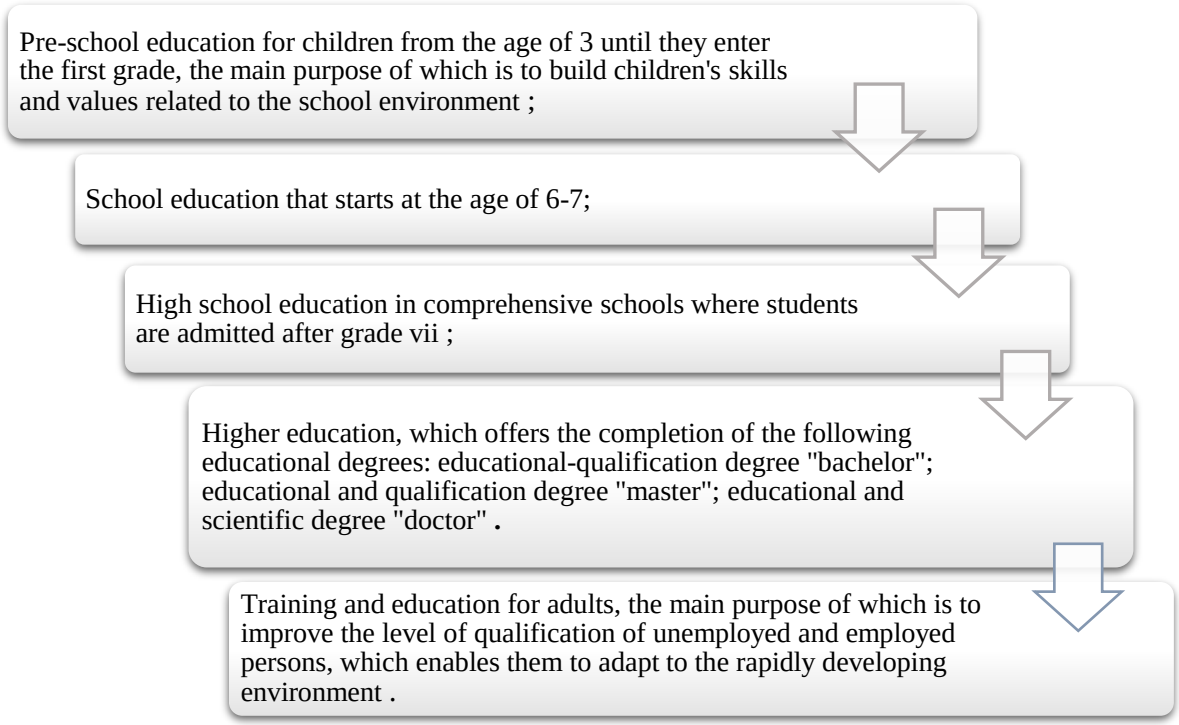


*Figure 1. Structure of the educational system in Bulgaria*
*Source:* (MOH, 2016)

Achieving European quality is a priority educational goal and is achievable by providing a favourable environment for increasing the quality of educational products and services, increasing efficiency, providing an opportunity for practical applicability of training, taking into account the specific characteristics of the individual. The cause-and-effect relationships between the individual educational and qualification levels create an opportunity for decentralized management and maintenance of a positive educational climate. It follows that the structure of the educational system is the main tool enabling the formation of entrepreneurial skills and successful professional development of the individual.

A number of national and European programs help to overcome challenges such as the early dropout of students from the education system and the significant decline in literacy. The strategic framework for the development of education, training and learning in the Republic of Bulgaria (2021 – 2030), in accordance with the current normative documents, highlights nine priority areas, initiating the achievement and observance of: continuity, partnership and coherence, measurability, accountability and sustainability of results, innovativeness, transparency and promotion of measures and results (see Fig. 2):

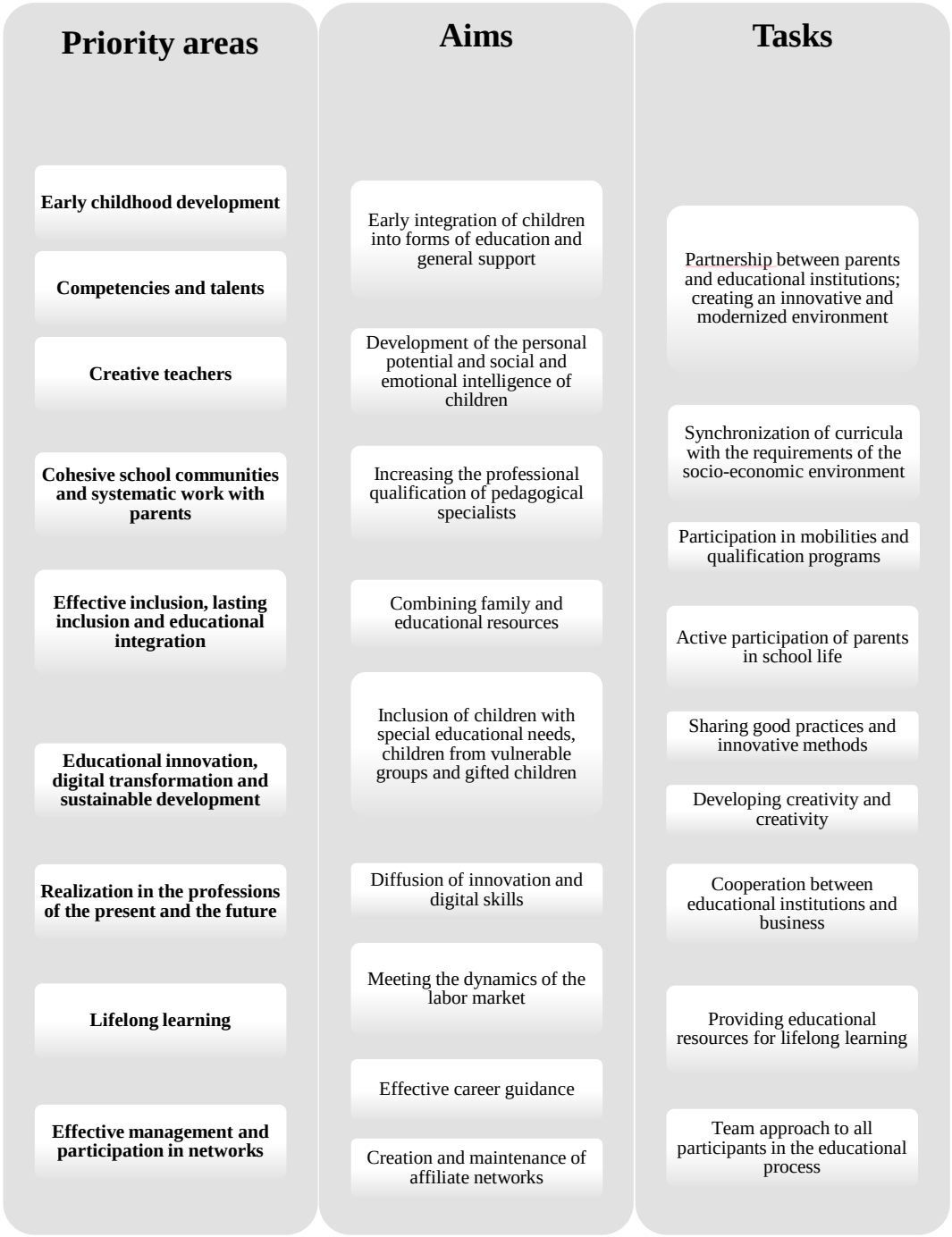


*Figure 2. Main objectives set in the priority areas of the strategic framework*
*Source: Adapted from:* (MES, 2021)

The effectiveness of educational institutions and the cooperation between them are closely related to the exchange of good practices in the field of education. Interaction with the goals and measures set in the cited priority areas will undoubtedly increase the quality of education and guarantee the achievement of a number of positive effects.

## 2. Specificity of innovations in the education system

In ***the second paragraph*** defines the term "innovation", offers a classification of educational innovations, indicates the role and importance of the innovation process in education, emphasizes the benefit of innovative education and training.

The term "innovation" was introduced by Schumpeter in the 1930s. Literally translated, it means "in the direction of movement", which defines innovation as the application of new combinations in order to obtain a positive result (Варамезов & Пантелеева, 2022). Economic theory defines many concepts, all of which account for the result of the introduction and application of innovations (Каръкова, 2018). Educational innovation is revealed in two directions: *the result of a creative process in the form of a new technology or method* and *the process of implementing new elements, approaches, principles instead of the used ones* (Planinska, 2018).

Education as a specific social activity requires the classification of innovations according to several main criteria:

- ✓ **according to the level of education:** in which they are implemented: innovations in the system of preschool preparation, in primary school, in primary school, in the system of secondary education, in the system of higher education, in continuing education;
- ✓ **according to its main direction**: innovations aimed at changing the material - environment; innovations aimed at changes in the subjects of the educational process (teachers, lecturers, pupils, students); innovations aimed at creating teaching aids and aids in electronic or paper form; innovations aimed at continuing education of adults;
- ✓ **by scope, the innovations are**: school and inter-school innovations; university and inter-university; local; municipal; regional; national; international;
- ✓ **by areas of change**: innovations in learning content and the learning process; innovations in the field of education and the formation of skills (for civic education, for tolerant ethnic relations, for ecological education, for health education); innovations in the way teachers are qualified; innovations in the material base; improving relations between students and teachers; innovations in school management;
- ✓ **according to its main purpose** : innovations related to satisfying educational needs; innovations supporting the resolution of educational and educational problems.

The proposed classification of innovations in the field of education does not pretend to be comprehensive, but it allows to gain an idea of possible innovations in the education system, taking into account the specific features of the individual elements of the system, the interested parties, the readiness to perceive the innovation and its introduction.

Innovative activities are an invariable condition for the implementation of original ideas within educational institutions, embodying knowledge and skills in a unique result. As the beginning of the innovation process, most researchers consider the moment of

emergence of the creative idea. There is no consensus on its end. Paleshutski (1991) defines the end of the innovation process with the term "physical product", M. Velev points to the concept of "mass production and absorption of the market". I. Georgiev, Ts. Tsvetkov and D. Blagoev (2013) consider the stage of "final development and implementation of the innovation" as the end, but add another optional stage "training (learning lessons from experience)" (Georgiev, Tsvetkov, & Blagoev, 2013). L. Varamezov (2013) identifies the end of the innovation process with "expanding the scale of the practical application of the innovation (diffusion) and multiplying its effect". It follows from the overview that the end of the innovation process can be defined as the materialization of the innovation idea.

**The content scope of the innovation process from the point of view of the educational system** includes: *creation/emergence of an innovative educational idea; finding the relevant scientific solution and a justified approach for its application; subsequent conceptual refinement; methodological and organizational preparation; - development of a practical application framework and possible implementation options; implementation of innovations in the educational system; identification of changes that have occurred and assessment of results, effects and accompanying problems, improvement of introduced innovation practices and tools; diffusion among structural units in the educational system and its users; subsequent improvement/adaptation of introduced new practices and tools*.

Special attention should be paid to *the possibility of variable application of various combinations of innovative* (educational/pedagogical/methodical/ organizational/management) *methods, techniques and methods to achieve the desired results, combining justified risks, innovative changes, good quality of the educational product, satisfied consumers, multidirectional benefits at all levels within and beyond the scope of the educational system* . In this context, the focus in educational policies is increasingly on the creation of favourable conditions allowing the self-determination of students, which in practice also changes the role of education in general. Innovation in education does not eliminate traditional concepts and methods, but transforms established traditions into a new way of thinking, new methods and techniques of teaching, a new way of management, a new educational vision.

In the traditional learning model, also known as the traditional teaching model or the traditional educational model, the roles of the teacher and the student are very clearly visible, where the dynamics of the learning process falls on the teacher, and the student is a passive recipient of information (Hunt, 2021). Its main advantages are evident in the easy teaching of knowledge and skills, supporting the processes of remembering, and also the generation of self- discipline (Hunt, 2021). Among the significant disadvantages of this type of training can be pointed out the emphasis on memory and not on thinking (Atkinson, 1908). This type of training has no significant contribution to the development of creativity, activity, independence. A reproductive style of cognitive

activity is formed in the students, from which the term “school of memory” originates (Verbicki, 1991).

As a variety of social innovation, innovative learning is a purposeful change, improving the characteristics not only of structural elements, but also of the system as a whole (Planinska, 2018). It allows building a modern environment, increasing motivation and results, developing creativity, emotional intelligence, enabling the acquisition of key competencies, promoting leadership, responsibility, an active position, initiative, the ability to take risks. In this type of learning, the “object – subject” relationship is again observed, but the specific thing about it is that the object is each individual student (Planinska, 2018).

In recent decades, in the Bulgarian educational system, the need to introduce innovative practices that correspond with the traditional ones, in a way that allows the preservation of the positive result of the experience in the process of change, is becoming more and more clear. This is clearly evident in the implemented strategies (see Table 1), programs and measures stimulating the updating of the overall educational concept.

**Table 1**. Educational strategies

| Educational strategies | Target | Scope |
|---|---|---|
| **Recovery and Resilience Plan:**<br>- Investment project 1 "STEM centres and innovations in education":<br>- Investment project 2 "Modernization of the educational environment":<br>- Investment project 3 "Youth organizations";<br>- Investment project 4 "Research Universities" | Increasing motivation, skills, quality, work performance | *National* |
| **Strategy for the development of higher education in the Republic of Bulgaria 2021-2030.** | 1. Improving access and increasing the share of higher education graduates;<br>2. Substantial increase in the quality of higher education;<br>3. Building a sustainable and effective connection between higher education institutions and the labour market;<br>4. Stimulation of scientific research activity;<br>5. Modernization of the higher education management system. | *National* |
| **National strategy for the development of scientific research in the Republic of Bulgaria 2017 - 2030** | Rapid and long-term development and modernization of the scientific research system in Bulgaria | *National* |

| | | |
|---|---|---|
| **Strategic framework for the development of education, training and learning in the Republic of Bulgaria (2021 – 2030)** | 1. Early childhood development;<br>2. Development of competences and talents;<br>3. Motivated and creative teachers;<br>4. Effective inclusion, permanent inclusion, educational integration;<br>5. Cohesive school communities:<br>6. Educational innovations, digital transformation and sustainable development;<br>7. Realization in the professions of the future;<br>8. Lifelong learning;<br>9. Effective management. | *National* |
| **National strategy of the Republic of Bulgaria for equality, inclusion and participation of the Roma (2021 - 2030)** | Achieving equality, inclusion and participation of vulnerable ethnic groups and communities | *National* |

*Source: Adapted from (MES, 2023)*

The intensive changes implemented in the early 20s of the 21st century, dictated by educational policies, are a kind of transition to a green economy. Globalization requires the introduction of information technologies, the acquisition of digital competences with an emphasis on foreign language learning, the effective cooperation between all participants in the educational process and, above all, the synchronization of curricula and programs with the requirements and expectations of the business environment (MES, 2019).

Modern education focuses on building and developing skills for life and work in the 21st century, for which personal achievements, high qualification and permanent learning are a priority.

### 3. Integration of innovations in the field of education

The ***third paragraph*** defines the concept of "educational integration" and presents the ways of introducing and implementing educational innovations at the national, regional and school level.

The concepts of "intellectual education" and "educational integration" appeared during the first years of democratic changes in Bulgaria in connection with attempts to liberalize educational legislation (Totseva, 2010). The term "integration" itself is of Latin origin and in literal translation means the unification of separate parts or elements into a single whole (Dictionary, 1978). Integration is a process of creating communities or turning "*previously separate units into components of a single system"* (Ivanova, 1998).

"Educational integration" is an institutional process of unification between educational subjects who are carriers of cultural differences, within a common educational environment to meet the same educational standards (Nunev, 2009). From the point of view of the innovative educational process, integration should be understood as a way of perceiving and spreading innovative methods, techniques, processes, enabling positive changes in education.

LPSE is the first official state document in which the term "innovations" appears as a legal basis for the introduction of innovations in the structures of Bulgarian education (Totseva 2018). The introduced amendments mean that the state, and in particular the Ministry of Education and Culture, implement policies aimed at the integration of innovations at all levels and in all educational institutions.

State policy promoting innovation through projects funded by the EU contributes to successful educational integration. Although unofficially announced, it allows many educational institutions and vocational high schools to develop and implement projects in which new interactive educational technologies are tested, mostly in partnership with schools from other EU member states (Totseva, 2010).

Erasmus+ is a European program to support education, training, youth and sport in Europe, which offers mobility and cooperation in the fields of: higher, vocational education and training, school education, youth and sport. The main objective of the program is the construction of a European area for education and training, providing the opportunity for lifelong learning, and from there – achieving sustainable growth, adequate jobs and social cohesion, promoting innovation.

***The instrument (structural units) with which the Ministry of Education and Culture implements the educational policies laid down in the strategic framework are the Regional Directorates of Education (RDE)***. Each RDE is a legal entity with budgetary support to the Minister of Education and Science, who is the secondary – budget manager of the Ministry of Education and Science. RDE is an administrative structure that is managed and represented by a chief (MES, 2021).

According to Art. 253 (2) of *the Preschool and School Education Act* (MOH, 2016) the structure and functions of the regional administrations of education, as well as the areas in whose territory they carry out their activities, are determined by the Regulations on the structure and functions of the regional administrations of education, issued by the Minister of Education and Science (MES, 2021). The Regional Directorate of Education carries out its activities according to an annual plan approved by the Minister of Education and Science, and the head of the RDE submits to the Minister of Education and Science a report on the implementation of the activities set out in the annual plan.

The control activity of the RDE is carried out through (MES, 2021): ***thematic and ongoing inspections***; ***monitoring***; ***follow-up checks***; ***checks on complaints and reports***. The regional management of education provides methodical support to

structural units by region. It helps to implement the process of inclusive education and support centres for personal development (MES, 2021). ***Through its activities, the RDE promotes the integration of educational innovations by supporting and controlling the activities of each educational institution in accordance with the set priority political goals. Transfer of innovations and successful implementation of national policies in pre-school and school education is realized through the efforts that RDE makes for good cooperation with parents, social partners, employers and citizens*** .

**Innovation in school** is *the final result of the innovation activity, realized in the form of a new educational product or an improved process used in practical activity* . Schools can annually apply to acquire the status of an innovative school by developing a project proposal for pedagogical innovation. The innovation can last up to 4 years and cover all or part of the participants in the educational process in the school (MES, 2016). By May 31 each year, the Minister submits to the Council of Ministers a proposal for adoption of the List of Innovative Schools for the upcoming school year (MES, 2016).

The other possibility for integrating educational innovations at the school level is the National Program "Innovations in Action". From 01.09.2022 to 21.10.2022, every school had the opportunity to apply within the academic year 2022/2023. The program was aimed at supporting schools and teachers implementing innovative activities, as well as schools with innovative practices and those with the potential to develop innovations in the fields of natural sciences, digital technologies, engineering thinking and mathematics (STEM).

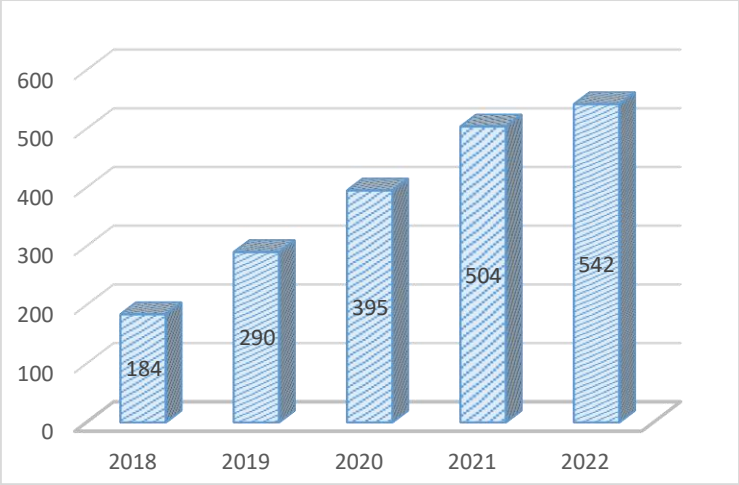


*Figure 3. Number of innovative schools in Bulgaria for the period 2018-2022.*
*Source: Adapted from:* (MES, 2023)

The first innovative schools started their activities in the academic year 2017 - 2018. By 2022, 542 schools out of a total of 1,948 have acquired the status of an innovative school (see Fig. 3) (see Appendix 1). We quite rightly claim that the growing number of

innovative schools is the main indicator of the effectiveness of the implemented educational policies.

As other policies promoting educational innovative integration , we can point out: partnerships between schools and universities; partnerships between schools and business organizations; partnerships with NGOs; platforms for the exchange of good practices between educators.

***Summaries and conclusions from Chapter One***

The Bulgarian education system, as a fundamental factor for social prosperity and, in particular, for the development of the personality, provides collective, group and individual forms of the organization of the educational process, tailored both to individual needs and to the needs of society. The application of innovative ideas within educational institutions, the use of new knowledge, skills and practices, the upgrading and improvement of traditional models and techniques are an indisputable condition for achieving success in the process of transforming the educational system and a positive prerequisite for their subsequent incorporation into social – the economic life of the country.

The construction of a model and the implementation of an appropriate strategy, oriented towards overcoming the existing problem areas, are the basis of the transition to a modern educational environment, and the integration of various types of innovations in the educational system is a condition for the achievement of quality. The regulatory framework in Bulgaria largely supports the integration of pedagogical innovations by providing opportunities for the creation and transfer of educational innovations. Efforts are multi-directional, covering the following areas:

- introduction of new teaching methods;
- creation of new study subjects, plans and programs;
- introduction of office and augmented reality applications;
- use of multimedia and interactive tools;
- introduction of digital technologies;
- implementation of new ways of organizing the management of educational structural units;
- use of various software products and platforms necessary for administration and management;
- modernization of the learning environment by building school networks, increasing the qualification of pedagogical specialists, administrators, directors.

In accordance with the individual needs of students and in line with state educational standards, educational institutions are given the opportunity to freely choose the type of innovations and the degree of their application. Based on an office study and the observations made, the conclusion can be formulated that the success of innovative activity in education is largely the personal responsibility of the administrative and

pedagogical staff (principals of schools, administrators from various structural units of the educational system, teachers).

The educational policies of the state provide a significant opportunity to build a network of innovative schools, share good pedagogical experience, carry out an active dialogue with non-governmental and business organizations, etc., which is a prerequisite for constructive dialogue, sharing and solving problems, taking appropriate solutions and achieving quality and efficiency aimed at increasing knowledge and skills and developing the competencies acquired by users of educational products/services.

Within the educational system, innovative schools are established as a fundamental factor for the modernization of Bulgarian education, but their share compared to the total number of Bulgarian schools is still low. In order to achieve more noticeable results related to the transformation of the educational system and the direction of changes in the direction of innovative development and adequacy of public/market needs, more active measures and actions are needed. An important place among them should be the activities of innovative educational integration. In this context, educational policies, regional instruments and the initiative of the participants in the educational system (principals of schools, administrators from various structural units of the educational system, teachers) are an important condition for renewing the vision of Bulgarian education and a prerequisite for achieving European quality.

## Chapter II. TRENDS AND PRACTICES FOR ENFORCING AN ENTREPRENEURIAL VISION IN EDUCATION

In ***the second chapter,*** the essence of the entrepreneurial learning model as an innovative practice is clarified. Factors influencing the imposition of an entrepreneurial vision and the importance of entrepreneurial training as a result of acquired knowledge and skills are examined. The chapter consists of four paragraphs in the following sequence **:**

### 1. Methodology and scope of the study

**The *first paragraph*** clarifies the methodological and organizational aspects of the research and outlines the profile of the respondents.

The study is based on a study of the state of the educational system in Bulgaria and, more specifically, the introduction and application of innovative methods, with the aim of imposing entrepreneurial behaviour through an entrepreneurial training model. The data from the practical research covers a ten-year period (2013 – 2022) (for some indicators - data after 2010), using diverse and wide-ranging information resources to process and systematize the presented empirical results. The research was conducted in 2021, 2022 and 2023.

***The object*** *of the practical research is the empirical projections of innovations in the educational system of the Republic of Bulgaria, and* ***the subject*** *– the possibilities*

*for innovative changes in the educational system, the learning process and the tools used, based on the entrepreneurial model of learning.*

Within the framework of the practical research, **the aim** is to establish the scope and depth of diffusion/introduction of innovations in the educational system, the possibilities of expanding their impact and the achievement of multidirectional benefits. The following sub-goals are formulated:

- ✓ to study the possibilities for improving the educational system;
- ✓ to outline the problem areas hindering the innovation of education;
- ✓ to clarify the positive effects of adopting the entrepreneurial learning model;
- ✓ to identify possible solutions for improving Bulgarian education and improving the quality of the educational products/services offered by it based on the entrepreneurial training model;
- ✓ to make proposals for increasing the quality of educational products/services through systematic and consistent innovation change.

To carry out the empirical research, the following hypotheses are defined:

➢ **Hypothesis 1:** The successful implementation and promotion of an entrepreneurial learning model largely depends on the presence of entrepreneurial thinking and behaviour formed as a result of the permanent creation of an entrepreneurial culture.

➢ **Hypothesis 2**: The introduction and popularization of an entrepreneurial learning model makes it possible to modernize each of the educational levels, helping to renew the overall appearance of the system, taking into account the influence of many external and internal factors.

➢ **Hypothesis 3:** The introduction of the entrepreneurial learning model will largely eliminate the opposition of theoretical knowledge to practical experience based on experiential learning.

The methodological part of the research, its organization and conduct are built in a logical sequence, including six interconnected stages and activities (see Fig. 4).

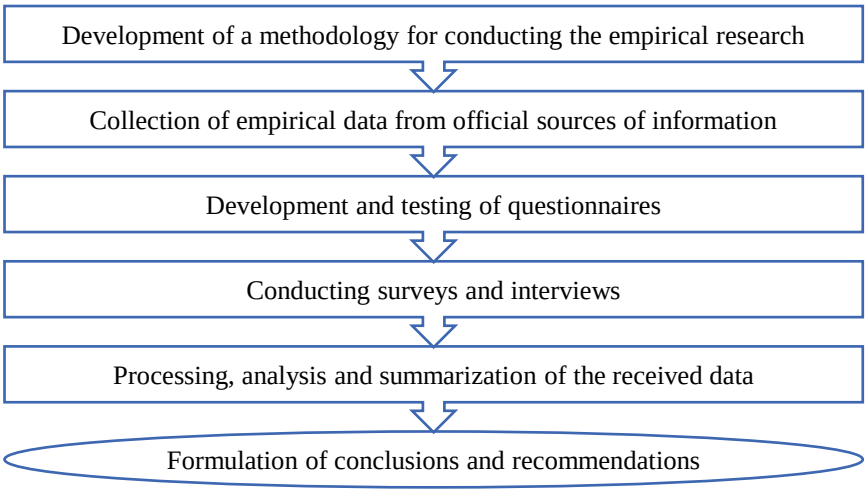


*Figure 4. Stages of conducting the empirical research*

has been developed ***for the study of the entrepreneurial training model, which covers the main areas and the related indicators*** (see Table 2).

**Table 2. Methodological framework for researching the entrepreneurial learning model**

| Indicator area | Indicators | Gauges |
|---|---|---|
| ***Identification of the respondents*** | Position in the educational institution | Total number, % |
| | Educational degree and teaching experience | Share, % |
| | Scope of implementation | Share, % |
| ***Implementation and introduction of innovation practices in the context of an entrepreneurial learning model*** | Degree of application of interactive methods for teaching knowledge through new tools and acquisition of specific competencies | Share, % |
| | A degree of knowledge of the main characteristics necessary to create and improve the entrepreneurial learning model | Share, % |
| | Evaluation of the added value of the innovation process | Share, % |
| | Availability of opportunities to raise awareness about cooperation between educational institutions and businesses | Share, % |
| ***Challenges to the implementation of the entrepreneurial vision in educational units*** | Major obstacles to creating an entrepreneurial mindset and behaviour | Share, % |
| | Normative restrictions and administrative obstacles to the entrepreneurial culture in Bulgaria | Share, % |
| | Expected effects and opportunity to develop entrepreneurial practices in the learning process | Share, % |
| | Activities for the formation of entrepreneurial knowledge and skills, measuring the effectiveness of entrepreneurial training | Share, % |
| | National programs, teacher networks and effective partnerships with organizations as a tool for applying acquired entrepreneurial competencies | Share, % |

Data from the empirical study covers the period from 2013 to 2022 (for some indicators – after 2010). The empirical factology based on data from the National Statistical Institute (NSI) includes: data on the number of the population in Bulgaria; coefficient of age dependence; total number of schools; number of innovative schools by region and by type of school; population forecast; employment/unemployment at working age; working persons in general and by degree of education, who have acquired a degree of professional qualification; students who have dropped out of the education system; students in general education schools; students in vocational schools; teaching staff by age and level of education, by type of school; public expenditure on education.

To conduct the empirical study, two questionnaires were prepared, which contain a total of 50 questions, divided into sections corresponding to the content of the scope of the set goals. Participants with different status and role in achieving a certain state of the educational system are included in the study. The respondents who fall within the

scope of the research perform ***specific activities/functions in the introduction and implementation of the entrepreneurial learning model*** (students – 18%, teachers – 25%, parents – 27%, administrative employees – 15% and management staff – 15%). ***The age profile of the respondents*** has a wide range - between 18 and 60 (see Fig. 11), covering representatives of different generations and with different social roles in the educational process. The age group in the range of 41-50 years (38%) dominates, followed by 51-60 years (20%), i.e. more than half of the respondents have life experience, professional views and a certain view on the functioning of the educational system. Individual participants have a different individual profile (age, gender, social affiliation and status) and to some extent these differences should be taken into account, even if they do not play such a significant role.

According to the respondents, personal qualities play a key role in the adoption of the entrepreneurial model of learning as a type of innovation within the educational system. In this context, there is a correspondence between ***the needs of society and the economy, on the one hand, and the spirit that is "educated" with the model*** - development of individual characteristics in the direction of modelling towards a strengthened component of creativity, competitiveness, entrepreneurship.

Regardless of the fact that **gender** is not a significant factor delimiting the behaviour of participants in an educational system, empirical factology has its cognitive significance. Statistical data for the country consistently show that the educational system in Bulgaria is significantly feminized. The research participants are also predominantly women - two thirds of the respondents or 68%. Of course, the fact that some of them are students - users of entrepreneurial knowledge, and mothers – the parents of the students, and are not part of the teaching and administrative staff in the educational system, should also be taken into account.

The empirical research is dominated by the share of **respondents with higher education** (50%), from which the group of learners is completely excluded. The participants in the study with secondary general educational and professional education by status are representatives of the parental family, administrative and service staff.

The combined data on the respondents by age and level of education shows *the presence of a sufficient number of teaching and administrative-methodological staff with higher education who have professional experience, a long-term view of the processes and results of the functioning of the educational system*. The respondents included in the survey are not a representative sample (although their number is large), but given the data on their profile, we can claim that *there is a high degree of reliability in the judgment of the respondents about the need for qualitative adaptation of education and the application of an educational model of training adequate to the modern state of education and business*. As appropriate for the target messages in the educational sphere, the respondents point out precisely the entrepreneurial model of training.

## 2. Educational services in the context of the modern entrepreneurial vision

In ***the second paragraph,*** the essence of the entrepreneurial model of education is clarified, the presence of entrepreneurship in the Bulgarian school is outlined and the need to introduce and implement the model is justified.

Summarizing empirical data at the national level show a steadily increasing number of schools in Bulgaria introducing the entrepreneurial model of education. In parallel, there is a persistent tendency to apply the already established practice for Entrepreneurship training.

The successful implementation and modelling of permanent processes for improving the entrepreneurial training model require the availability of a rich database and a good knowledge of the overall picture within the educational system, and special attention should be paid to the opportunities for increasing motivation and improving personal qualities. This implies a parallel development of entrepreneurial skills, which in the field of educational services are tied to the generation of entrepreneurial thinking and behaviour.

**The specific goal of the entrepreneurial learning model** is to introduce *practical knowledge, social cohesion and high employability*. In this case, entrepreneurial thinking and behaviour ensure resilience and adaptation. For this reason, *the entrepreneurial learning model can be defined as a system of core competencies* (see Fig. 5). Key competences are needed by every person for personal fulfilment, social inclusion, sustainable lifestyle and active civic participation. They are acquired through learning from early childhood through formal, non-formal and informal learning in all settings, including the family, school, workplace and other communities (European Reference Framework, 2018). They are equally important and interdependent, but each of them contributes to increasing the quality of life in a different way and through a specific manifestation.


*Figure 5. Competencies in the entrepreneurial learning model system*
*Source:* (MES, 2014)

**Entrepreneurial competence** includes *a set of skills and behaviours that together form the character and personality of the entrepreneur in the context of a systematized and structured learning process*. Entrepreneurship training should stimulate, provoke and form critical thinking and interdisciplinary connections, assist in building entrepreneurial culture, skills and knowledge, and entrepreneurial culture is necessary for successful adaptation to dynamic changes, in which the key role is played by the public significance, purposefulness, self-determination. This is also evident in the "new look" at the curricula, the forms and the content of the knowledge taught in a number of basic subjects. In 2015, the European vision for entrepreneurship education was included in Decree No. 5. According to Ordinance No. 5 of November 30, 2015 for general educational preparation, the main key competences should be covered in the course of comprehensive school education. State policies to promote entrepreneurship education are launched in the academic year 2016/2017, with the visibility of results fixed over an upcoming time range.

On the basis of Ordinance 5, the Technology and Entrepreneurship subject is introduced in the primary and junior high school stages, and in the general education preparatory stage of the first high school stage offering vocational education – the Entrepreneurship subject. The goal is problem-free adaptation to news, formation of initiative and entrepreneurship (Hristova, 2016). Although the introduced curricula are a prerequisite for the development of entrepreneurial skills and habits, they are not a sufficient condition for their validation and practical application. This, in turn, provokes the inclusion of innovative practices, expanding the scope of learners by **integrating** them **into the general model of entrepreneurial training**.

The use of **the entrepreneurial training model** as *a tool and environment for the implementation of the learning process, administrative service and methodological*

*guidance requires the use of innovative approaches and good practices* . In *the field of education emerging trends for prioritizing the entrepreneurial model of education and entrepreneurship education should* take into account ***two essential moments*** : on the one hand, ***entrepreneurship as identification of opportunities, business development, self-employment, creation of enterprises and growth, i.e. creation of entrepreneurs*** (Fayolle & Gailly, 2008), and on the other hand, ***entrepreneurship as a way of personal development, creativity, independence and taking initiative,*** which concerns the approach that will be used, the target audience, the teaching and assessment methods (Mwasalwiba, 2010).

***From the point of view of education,*** entrepreneurship is a specific teaching-pedagogical, organizational and competence method based on the principles promoting human action in a way accessible to everyone (Sarasvathy & Venkataraman, 2011). ***As a necessity conditioned by modern conditions*** , the entrepreneurial model of training is an indisputable prerequisite for overcoming a number of problem areas and creating an educational vision adequate to the changing environment. ***As an engine for socio-economic growth***, *the entrepreneurial process in the context of the educational system* predetermines the creative conception and practical application of entrepreneurial behaviour. ***The successful realization of diverse in content, but closely related goals, requires the introduction of a comprehensive concept, affirming the entrepreneurial approach and entrepreneurial education in general.***

**3. Factors affecting the development of the entrepreneurial spirit in the field of education**

In ***Paragraph three,*** the influence of main external and internal factors on the imposition of an entrepreneurial vision in the Bulgarian education system is defined.

The practical implementation of the entrepreneurial training model is affected by a number of **external factors** that affect the system as a whole and personally – the individual as a user of the educational service. **The demographic** picture in Bulgaria is characterized by persistent trends of aging and population decline, negative growth and an increase in migration processes. Figure 6 illustrates the indicated negative trends over a period of ten years. As can be seen from the figure, for the period 2013 – 2022, a decrease in **the number of the population is reported** , and the trend after 2019 shows an intensification of this process. As of 2022, the population of Bulgaria will number 6,447,710 million people, which is almost 1 million less than the population for the first year of the specified period.

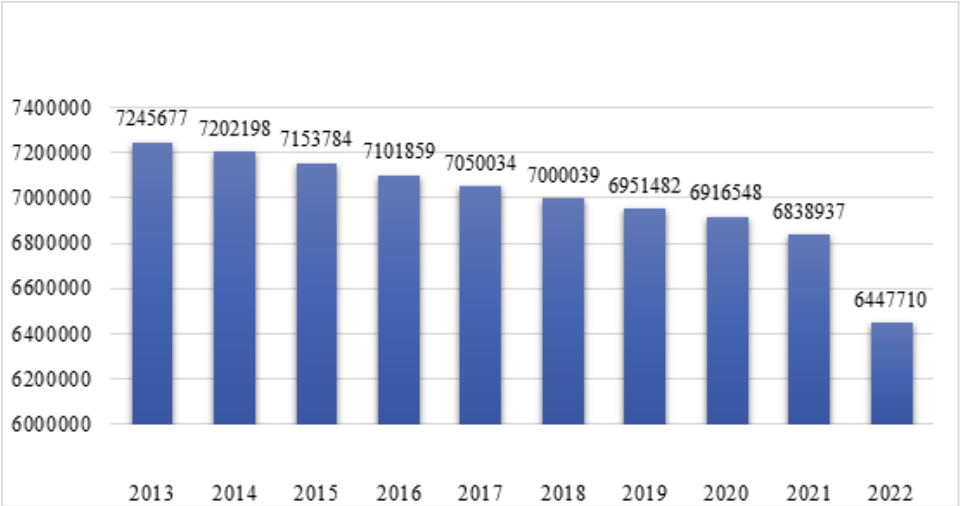


*Figure 6. Number of the population in Bulgaria for the period 2013 – 2022.*
*Source:*(NSI, 2022)

Negative demographic changes adversely affect the condition, characteristics and capacities of the educational system to transform in accordance with social needs and economic regularities. Since 2013, the number of schools has significantly decreased (see Fig. 7). There is an intensification of the processes of merging small schools into larger ones, and the negative trends in the educational system literally follow the unfavourable demographic trends.

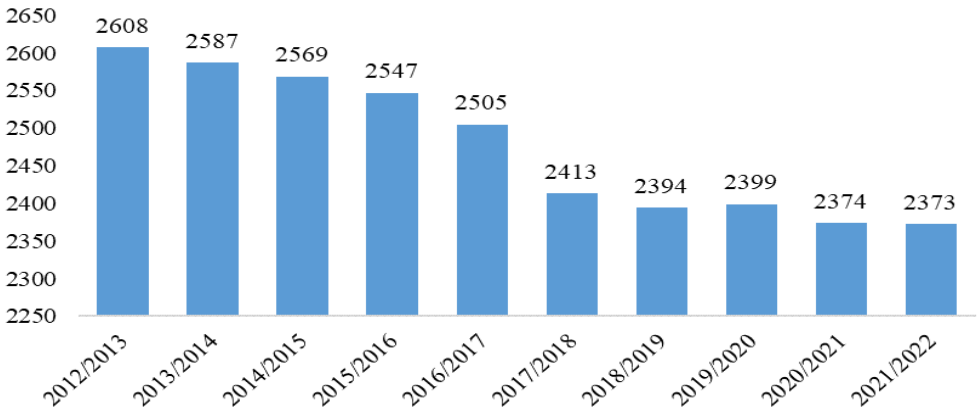


*Figure 7. Number of schools in Bulgaria for the period 2013 – 2022.*
*Source:*(NSI, 2022)

A higher educational level is a prerequisite for higher quality, which, in turn, has an impact on overall economic growth and the labour market. How this will be achieved in the face of the continuing trends of students dropping out of the education system is the subject of both the present study and an occasion for future studies and debates. Table 3 shows the number of students who dropped out in the primary and secondary education system for the last ten-year period 2010 – 2019.

**Table 3.** Students who dropped out of the education system for the period 2010 - 2020, in number

| | | I - IV class | V - VIII class | V - VII class | IX - XIII class | VIII - XII class | Professional colleges after secondary education (IV degree professional qualification) | Professional classes for the acquisition of the first degree professional qualification |
|---|---|---|---|---|---|---|---|---|
| **2010/2011** | Total | 5596 | 6994 | X | 6084 | | 42 | 50 |
| **2011/2012** | Total | 5678 | 6749 | X | 5978 | | 7 | 38 |
| **2012/2013** | Total | 5268 | 6530 | X | 5708 | | 18 | 47 |
| **2013/2014** | Total | 5418 | 6679 | X | 5587 | | 54 | 56 |
| **2014/2015** | Total | 6320 | 8132 | X | 6632 | | 17 | 45 |
| **2015/2016** | Total | 6568 | 8139 | X | 6351 | | 74 | 38 |
| **2016/2017** | Total | 7052 | 7228 | X | 5711 | | 13 | 88 |
| **2017/2018** | Total | 7379 | X | 6523 | 7729 | | 4 | 170 |
| **2018/2019** | Total | 7024 | X | 6370 | X | 7545 | 9 | 179 |
| **2019/2020** | Total | 5671 | X | 5276 | X | 6287 | 12 | 244 |

*Source: Adapted from:* (NSE, 2022)

Efforts to limit the number of students dropping out should be universal, but for now the active participation in this process is more likely only the Bulgarian education system and too little – the other interested parties. The need for a new social vision requires upcoming reforms in all structural units of education, in the attitude of all participants and in the awareness of the need to innovate the overall educational approach.

Of no less importance are the internal factors influencing the imposition of training in the spirit of entrepreneurship. The most important of them are:

- ✓ **The educational reform** (changes in the LPSE, changes in the curricula and programs, changes in the state educational standards);
- ✓ **Forms of education** (students in general education schools, students in vocational high schools and colleges);
- ✓ **Funding** (education expenditure incurred at national, regional and local level);
- ✓ **Governance** (at national, regional and local level);
- ✓ **The teaching staff** (number of teachers, age structure of the teaching staff, educational level).

The new LPSE envisages the implementation of subsequent reforms in education, which provides educational prospects for imposing the entrepreneurial model of training. In this line of thinking, the priorities of the Ministry of Education and Culture are in line with the pressing problems and in harmony with the factors influencing the educational system and oriented towards: implementation of inclusive education;

improving the quality of education; increasing the professional qualification of teachers and learners.

**4. Trends and practices for imposing an entrepreneurial vision**

The ***fourth paragraph*** outlines some important trends and systematically – presents practices aimed at acquiring specific knowledge and skills as a result of entrepreneurial training.

Entrepreneurial competence is associated with the ability to recognize and use opportunities, creative planning and process management, which is the main goal of entrepreneurial training. This is also confirmed by the answers of the respondents in the conducted survey. According to them, entrepreneurial competence is expressed both in the management of processes and in their recognition and planning (see Fig. 8).

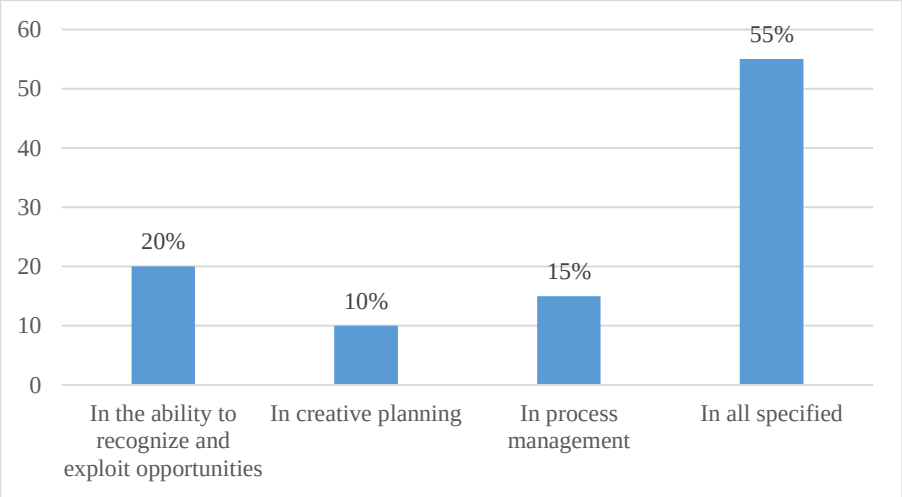


*Figure 8. Main aspects in which entrepreneurial competence is expressed (share of respondents in %)*

In percentage terms, 55% of the respondents consider that entrepreneurial – competence is the ability to recognize and use opportunities, and entrepreneurial culture is a synchronous process, the result of creative planning and organizational capabilities for specific management of the entrepreneurial learning model. For the respondents, personal qualities predetermine the acquisition of specialized knowledge and skills (language competence – 10%, mathematical and digital competence – 5%) and it is for this reason that their preponderance in the survey results is taken into account.

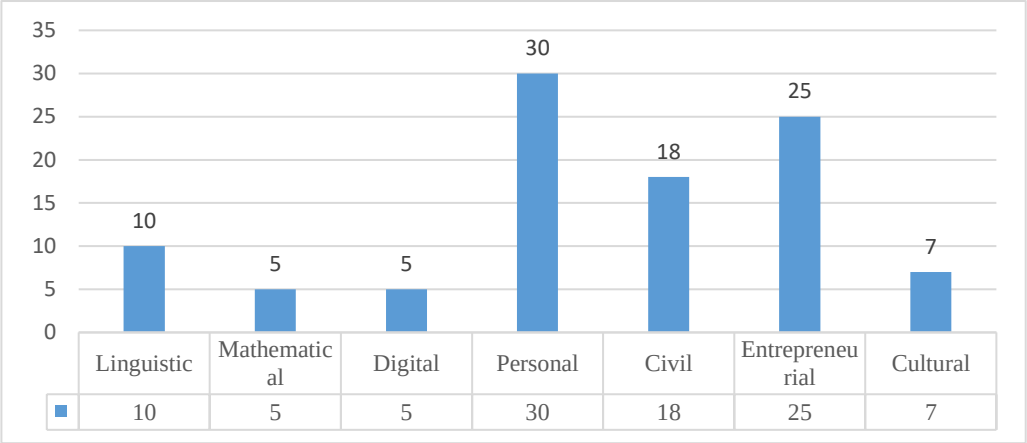


*Figure 9. Competences acquired through the application of innovative educational practices (share of respondents in %)*

Entrepreneurship training provides the necessary dynamics in the way of creating new ideas, technologies and educational appearance. In a similar context, the survey shows the opinion of the respondents about the main target line towards which the efforts in the education system should be directed (see Fig. 10). Respondents highlight innovation (50%) as a priority goal of entrepreneurial training, provoking self-initiative (30%) and stimulating competitive spirit (20%). The concreteness of the specified components gives a general idea of the expectations of the applicability of the entrepreneurial model implemented through innovative practices.

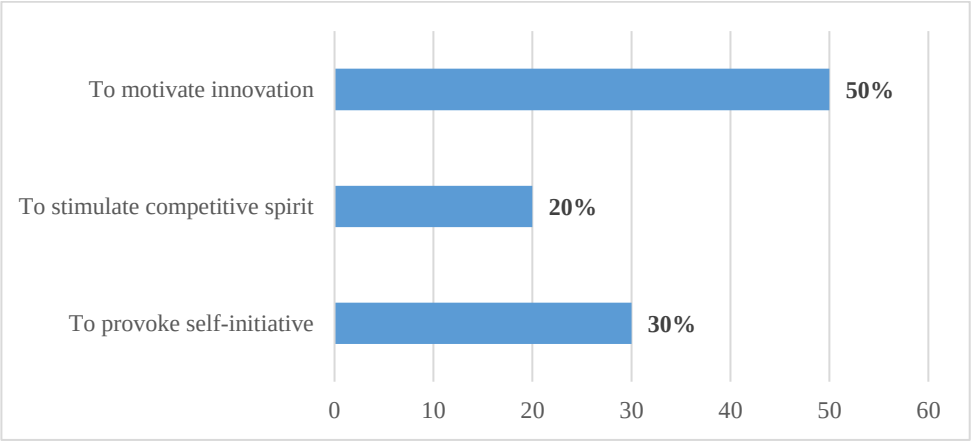


*Figure 10. Purpose of entrepreneurial training (share of respondents in %)*

From similar positions, the focus for the dominant part of the respondents is on the implementation of an innovative model in which the teacher is a partner (77%) (see Fig. 11).

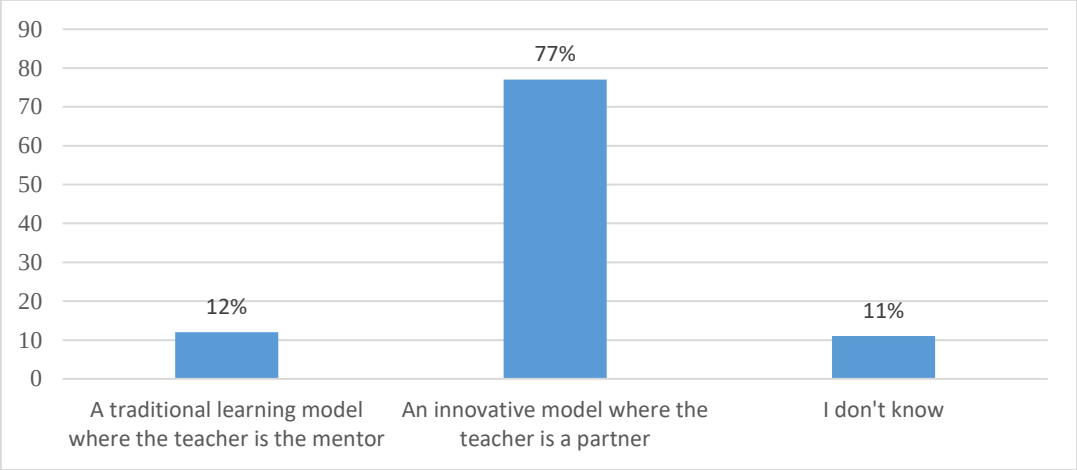


*Figure 11. Pedagogical training model forming entrepreneurial knowledge and skills (share of respondents in %)*

Respondents "underestimate" the effectiveness of established standards (i.e. the traditional training model – 12%) and are convinced that the innovative model is the one that creates the entrepreneurial vision. It should be noted that, in principle, the entrepreneurial model of training does not aim at the elimination of traditional concepts, but rather its application is associated with the synchronization of the two models. ***Entrepreneurship is based on innovation, and the innovative learning model means just that: introducing, spreading and applying innovative practices.***

Taking into account the difficulties in evaluating the effectiveness of training in the spirit of entrepreneurship, as well as the many limitations and factors complicating the evaluation process, it can be argued that a complete objective measurement of the result and effectiveness of the efforts made (resources spent) is almost impossible at the moment. For this purpose, the available possibilities should be reconsidered and a comprehensive system of standardized criteria, indicators and meters should be developed, which would take into account the necessary objective result and at the same time – minimize the highly subjective interpretations that can be made.

### *Summaries and conclusions from Chapter Two*

Educational programs, as a fundamental factor for acquiring professional competences and providing opportunities for personal growth, support students in the process of their career orientation in relation to their choice of profession, by purposefully contributing to the formation of skills to apply the acquired knowledge and to develop critical thinking .

The expectations from the application of the entrepreneurial training model are aimed at the realization of multidirectional benefits and effects based on a combination of acquired knowledge, skills and attitudes, the result of internal component consistency

and harmony between conceptualized, analysed and evaluated theoretical knowledge and practical skills in harmony with the requirements of the entrepreneurial environment and the possibility of their applicability.

The size and structure of the resources necessary for the successful implementation of the entrepreneurial model of training in all structural units and at all levels of education are directly dependent on a number of external factors affecting both the system as a whole and the individual as a user . No less important are the internal factors influencing the imposition of training in the spirit of entrepreneurship.

The presence of educational reforms in the new LPSE provides educational perspectives for the imposition of an entrepreneurial model of education. The priorities of the Ministry of Education and Culture are similarly oriented towards pressing problems: implementation of inclusive education; improving the quality of education; increasing the professional qualification of teachers and learners.

Innovative practices largely depend on the readiness of pedagogical specialists and administrative staff, but the users of educational services are also important, as are the opportunities for financing and development of the scientific and technical base.

The entrepreneurial model of training, implemented in cooperation with all participants in the educational process, can be considered as a unique transition to a sustainable economy. The goal is to develop and improve key competencies for a change in the overall appearance of education.

The increased penetration of educational innovations of all kinds and in all structural units of education aims at an increased presence of an entrepreneurial spirit in Bulgarian education. The idea of introducing and applying an entrepreneurial model of training is being popularized, with the aim being: researching the possibilities for improving the educational system; increasing the quality of educational products/services; clarifying the positive effects of adopting the entrepreneurial learning model; outlining the problem areas hindering innovation in education; offering possible solutions, methods and models for the improvement of Bulgarian education and the quality of educational products and services.

The data from the conducted empirical research show that the main obstacle in the introduction and popularization of innovative practices in Bulgarian education is the low degree of their diffusion development. This is exactly what necessitates taking actions to adapt the educational system to the new introductions in socio-economic life and the application of an entrepreneurial model of training in educational structures.

## Chapter III. IDENTIFYING PROBLEM AREAS, EXPECTED RESULTS AND FUTURE ACTIONS

In **the third chapter,** the problem areas in the implementation of an entrepreneurial model of education are outlined, as well as the strategic aspects for the

affirmation of the entrepreneurial vision, good practices implemented in the education system are presented, as well as the real benefits of the introduction of the model.

**1. Problem areas in the implementation of educational innovations**

The ***first*** paragraph discusses the problem areas limiting the achievement of an entrepreneurial vision.

As a type of educational innovation, the entrepreneurial model of learning from the position of mutual conditioning between theory and practice should overcome a number of difficulties. Figure 12 presents **the problem areas** that prevent the achievement of effective and lasting results.

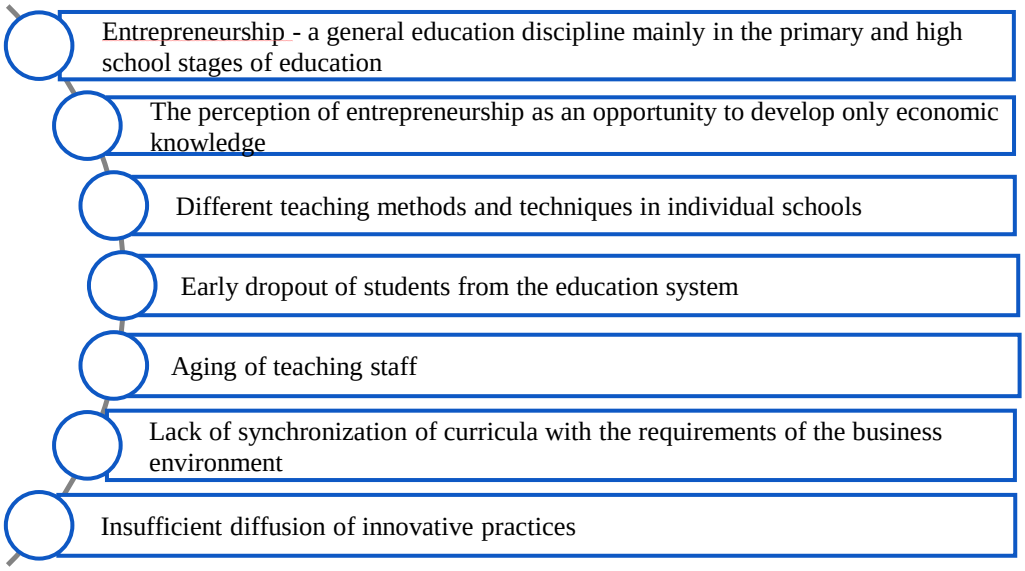


*Figure 12. Problem areas when implementing an entrepreneurial training model*
*Source: Adapted from:* (MES, 2021)

The implementation of innovative practices largely depends on the readiness of pedagogical specialists, administrative staff, as well as users of educational services to perceive change as a necessity. Many good innovative educational ideas remain unrealized due to insufficient funding and an underdeveloped scientific and technical base.

The survey of the respondents' opinion on the entrepreneurial learning model shows the different emphasis that the respondents place (see Fig. 13).

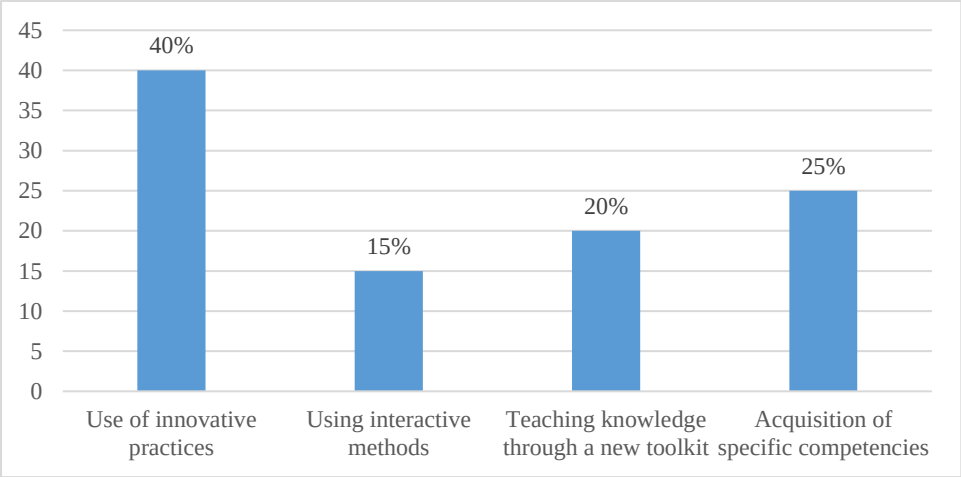


*Figure 13. Necessary components of the entrepreneurial learning model (share of respondents in %)*

One in four believes that it is the specific competencies that need to be acquired, and one in five - the use of new tools. The introduction of interactive methods in an educational system is gaining popularity, but in this case the data show not that these methods are not used or are not important/convenient/attractive (only 15% of respondents associate the entrepreneurial model of training with them), but rather , that the focus of entrepreneurial education is on something else.

***Knowledge and application of various innovative practices is at the heart of the model, but the key to its success is the balanced combination of traditional and innovative approaches to learning.***

Satisfactory results cannot be expected without the cooperation of the governing bodies, on which the creation of curricula and programs, the provision of the necessary capital and the unification of standards consistent with the status of the particular school depend to the greatest extent. From an objective point of view, the real benefits of introducing and popularizing the entrepreneurial model of education should be the main driver for transforming the education system and changing its appearance in accordance with the modern call of society.

**2. Expected results of the introduction of innovations in education.**

In ***the second paragraph,*** the possible strategy for affirming the entrepreneurial vision, the good educational practices in Bulgarian schools and the real benefits of training in an entrepreneurial spirit are presented.

The goal of the inclusive entrepreneurial model is to develop and enhance key competencies necessary to achieve excellence in a competitive environment. This necessitates a change in the overall appearance of education, with priority being given to the application of new teaching methods adapted to the current situational framework. From the point of view of adequacy and potential for realizing benefits from the

entrepreneurial training model, the application of a combination of the following training methods is justified (see Fig. 14):

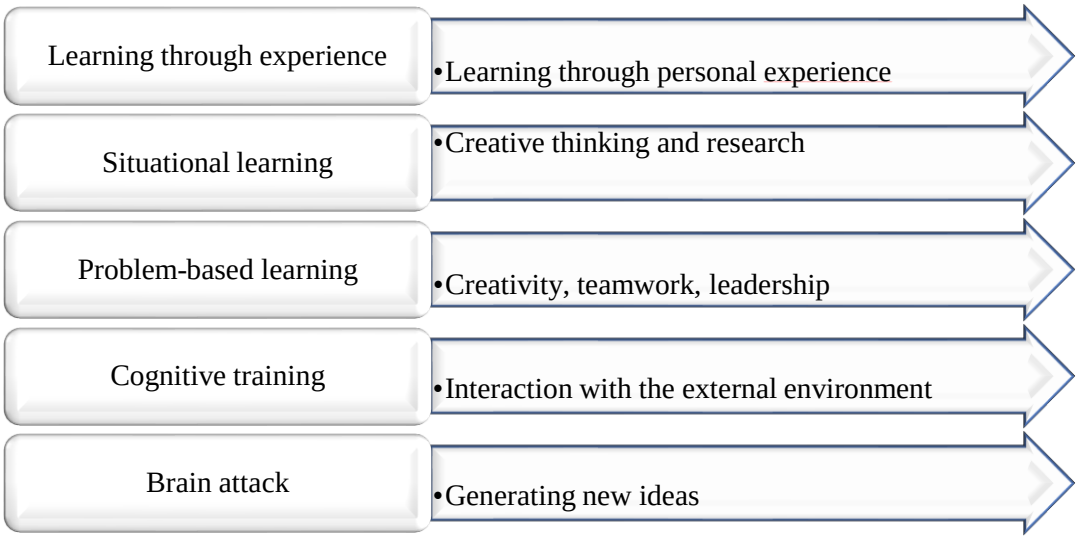


*Figure 14. Innovative training methods*
*Source:* (Bennett, 2006)

The innovative approach in education is associated with the ability to create and model the element of the educational process necessary for the respective school, using various options and schemes. It is this ability that makes the learning process technological, i.e. predictable and consistent with planned results. (Каръкова, 2018). It is recommended that the diverse and at the same time interconnected aspects of the desired target orientation for innovative transformations in the educational system of Bulgaria be considered as starting points for the realization of potential results and positive effects of the application of the entrepreneurial model of education. It is desirable to place them in the center and at the base of the most important pillars of the strategy for the affirmation of the entrepreneurial vision in Bulgarian education.

The progressively increasing number of innovative schools every year is in line with the National Program "Innovation in Action", promoting the exchange of experience between innovative schools and those that do not have such status (MON, 2023). Changes in the organization, management and content of training are supported.

Innovation activities in the context of the entrepreneurial model of training can be implemented through good practices, increased penetration of various educational innovations in the structural units of education, which implies an increase in the type of diversity of the offered models with a focus on entrepreneurial competencies and the entrepreneurial spirit. In the present work, an attempt is made to systematize the main types of good educational practices, without claiming to be exhaustive (see Fig. 15).

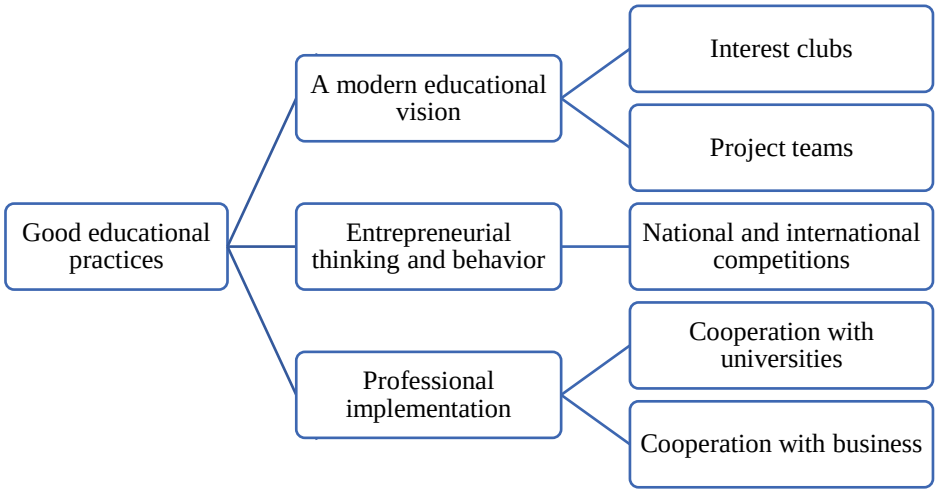


*Figure 15 Good practices in Bulgarian education*
*Source: Adapted by the author*

Realizing the need for innovative changes is an important moment for the educational system. As a positive fact, the implementation of processes related to the study of the various possibilities for their implementation can be considered. Awareness of the need and taking certain preliminary actions are important but insufficient prerequisites. The development of an entrepreneurial culture is also required, through which to form an active civic position, to stimulate initiative and social commitment.

As an objective cause or a natural reflection of the dynamics in the modern world, the entrepreneurial learning model affirms innovative ideas and their binding to concrete results. As a way to achieve such goals, 60% of the respondents indicate the promotion of good practices (see Fig. 16) through the use of various innovative methods, contributing to the improvement of key competences for the creation of own training resources. The real benefits of introducing innovative practices in the development of specific projects play a decisive role in the promotion of an entrepreneurial learning model.

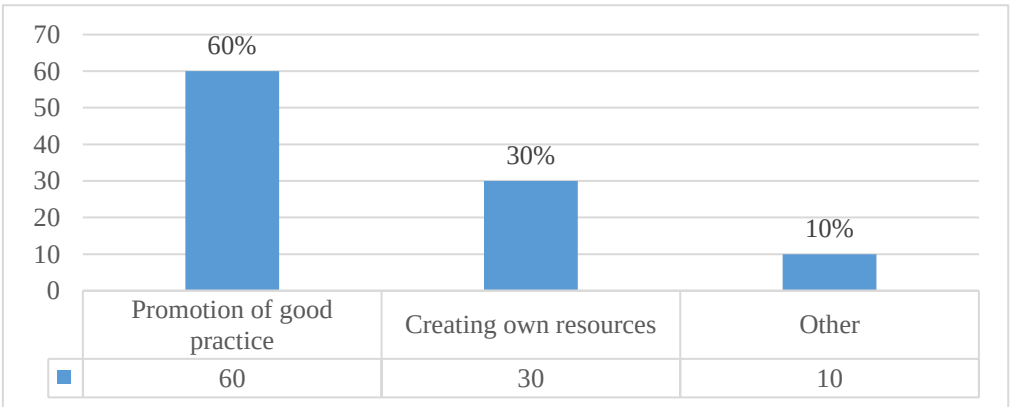


*Figure 16. Areas of application of innovative practices, used in the education system (share of respondents in %)*

The practical applicability of knowledge, the development of specific projects and the assimilation of basic theoretical concepts are the subject of a constructive - dialogue between educational institutions and business organizations. The application of the entrepreneurial training model aims to strengthen professional presence, increase personal motivation, the manifestation of clear social commitment and active civic presence. For its part, the change of the overall educational appearance should necessarily be linked to the development of the entrepreneurial model of training and to the strengthening of the entrepreneurial spirit.

### 3. Effects of implementing the entrepreneurial learning model

***Paragraph three*** focuses on the possible effects linked to the potential outcomes of introducing an entrepreneurial learning model.

The applied entrepreneurial model of training in cooperation with all participants in the educational process and synchronized with the study plans and programs is oriented towards the expectations of the business environment ("Euridice", 2016).A kind of transition to a sustainable economy are the changes dictated by educational policies. **The possible effects associated with the potential results** of the introduction of an entrepreneurial learning model are indicated in Table 4.

**Table 4 .** Possible effects and results of the introduction of an entrepreneurial model of training on the principle of project work

| ***Strategies of the educational system*** | ***Appearance of the modern school*** | ***A vision of innovative teachers*** | ***Effect of entrepreneurship training*** | ***Student results*** |
|---|---|---|---|---|
| ***Implementation of an entrepreneurial model*** | Modern material base | Creative | Basic economic knowledge | Learns the main theoretical statements |
| ***Effective school communities*** | Interactive resources | Flexible | Critical thinking | Acquire financial literacy |
| ***Updating the curricula*** | Positive atmosphere | Innovative | Cooperation | Takes risks and shows responsibility |
| ***Prevention against the early dropout of students from the educational system*** | Team work | Confident | Positive thinking and behaviour | Develops specific projects |
| ***Expanding the scope of the entrepreneurial learning model*** | Effectiveness of the learning process | Enterprising | Learn how to learn for life | Personal growth |

| | | | | |
|---|---|---|---|---|
| ***Diffusion of innovative practices*** | Hobbies | Supporting | Project activities | Professional - guidance |
| ***Synchronizing education with business needs*** | Creation and maintenance of affiliate networks | Motivating | Initiative | Practical applicability of knowledge |
| ***Development of pedagogical potential*** | Inclusive education | High quality - fixtures | Social engagement | Successful implementation |

*Source: Adapted from ("Euridice", 2016).*

Achieving multidirectional positive effects for all interested parties is essential for realizing the goals of the educational policy and the implementation of a synchronized state policy stimulating entrepreneurial training. The implementation of an adequate legal basis requires the implementation of coordinated support in the form of an inspectorate, local bodies of administrative power and other institutions and structural formations.

Data for the period under study show significant differences in public spending on education (see Figure 15). Based on the decreasing number of schools and students, they are almost doubled. In this regard, it can be argued that the state, in particular the Ministry of Education and Culture, is making tremendous efforts to increase the possibility of innovation, which also requires a larger budget.

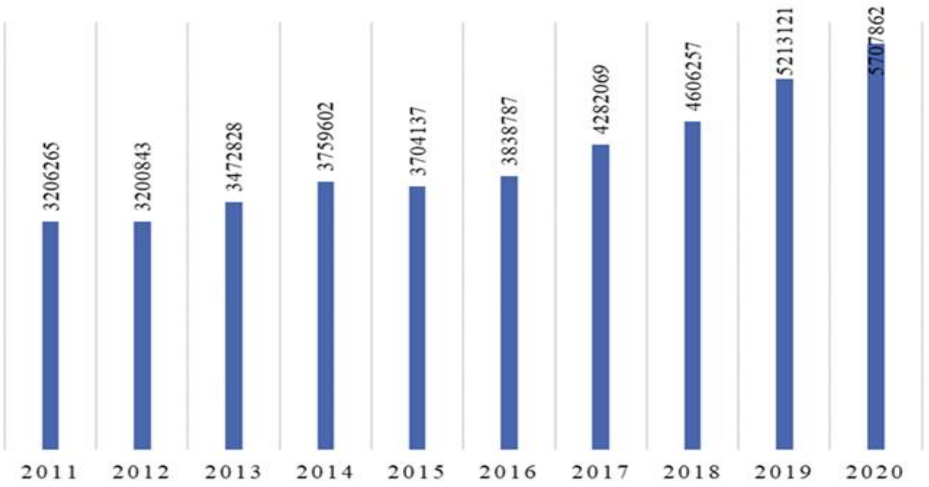


*Figure 17. Public expenditure on education in the period 2011 – 2022, in BGN*
*Source:*(NSI, 2022)

The findings provide an opportunity to rethink the policies aimed at young people and, more specifically, to change the vision of the teaching profession and transform it into an attractive and preferred one by them. The increase in teachers' salaries by more than 100% for the period 2016-2022, as well as the programs to increase the qualifications of teachers, are part of the measures aimed at attracting young personnel to the education system.

## 4. Future actions to increase/accelerate innovation-based transformations

The ***fourth paragraph*** comments on possible future actions to increase/accelerate transformations based on innovation, proposing *a Conceptual scheme of introduction/ implementation/application of the entrepreneurial learning model* .

Taking into account the current state of the educational system, the specifics of its functioning and the applied tools for training in the field of entrepreneurial competences, two variants can be assumed as starting positions from the point of view of the applicability of the entrepreneurial model of training in the Bulgarian educational system:

**Option 1:** *Introduction/implementation in the educational system of a "top-down" business model of training, taking into account the need to optimize standards and update curricula and programs in order to unify criteria and achieve measurability of results* .

Currently, high school students rely entirely on the initiative, competence and attitude of the teachers. This gives rise to different approaches in different schools and implies, accordingly, the application of different criteria for hard-to-measure and comparable results. The pursuit of high, measurable results requires undertaking cardinal changes. The beginning can be made with the introduction of the study subject Entrepreneurship as mandatory for all classes – up to the completion of secondary education.

**Variant 2:** *Introduction/implementation in the educational system of a "bottom-up" business model of training, with existing standard schemes within the initial and basic stages, and a lack of qualified teachers.*

In this option, the primary responsibility rests with the administrative leadership at the school level. Initiating changes is the responsibility of the director, who, in addition to management functions, should also be committed to providing not only human, but also other resources (especially digital resources) related to the effective implementation of the model. This requires the preparation of an adequate budget that covers not only the costs of the qualification of the pedagogical specialists, but also the provision of the necessary digital tools .

Bearing in mind the current state of the Bulgarian education system, it can be said with certainty that the beginning of the introduction of an entrepreneurial model of education was set by the generation of alternative possibilities – **Variant 1 and Variant 2.** They are not excluded, but neither synchronized.

The present development offers ***a conceptual scheme for introduction/ implementation/application of the entrepreneurial learning model*** (see Fig. 16). The presented model is in line with the trend of introducing and spreading various innovative practices in the educational system and outlines the interrelationships between the highlighted educational levels: school, regional and national, each of which interacts directly with a number of external and internal factors.

The improvement of the financing mechanism, the improvement of the system for national external evaluation, the creation of new educational content, the introduction of information technologies, the training of management personnel and teachers will undoubtedly be reflected in the activities carried out by RUO, and from there – will change and the appearance of the modern Bulgarian school. In this context, a number of ***benefits of applying the entrepreneurial training model*** can be highlighted:

- ✓ *specific transition from family to school environment; high quality and attractive education;*
- ✓ *retention of students from risk groups in the education system;*
- ✓ *development of pedagogical potential;*
- ✓ *adaptation of curricula and programs to the requirements of the modern business environment.*

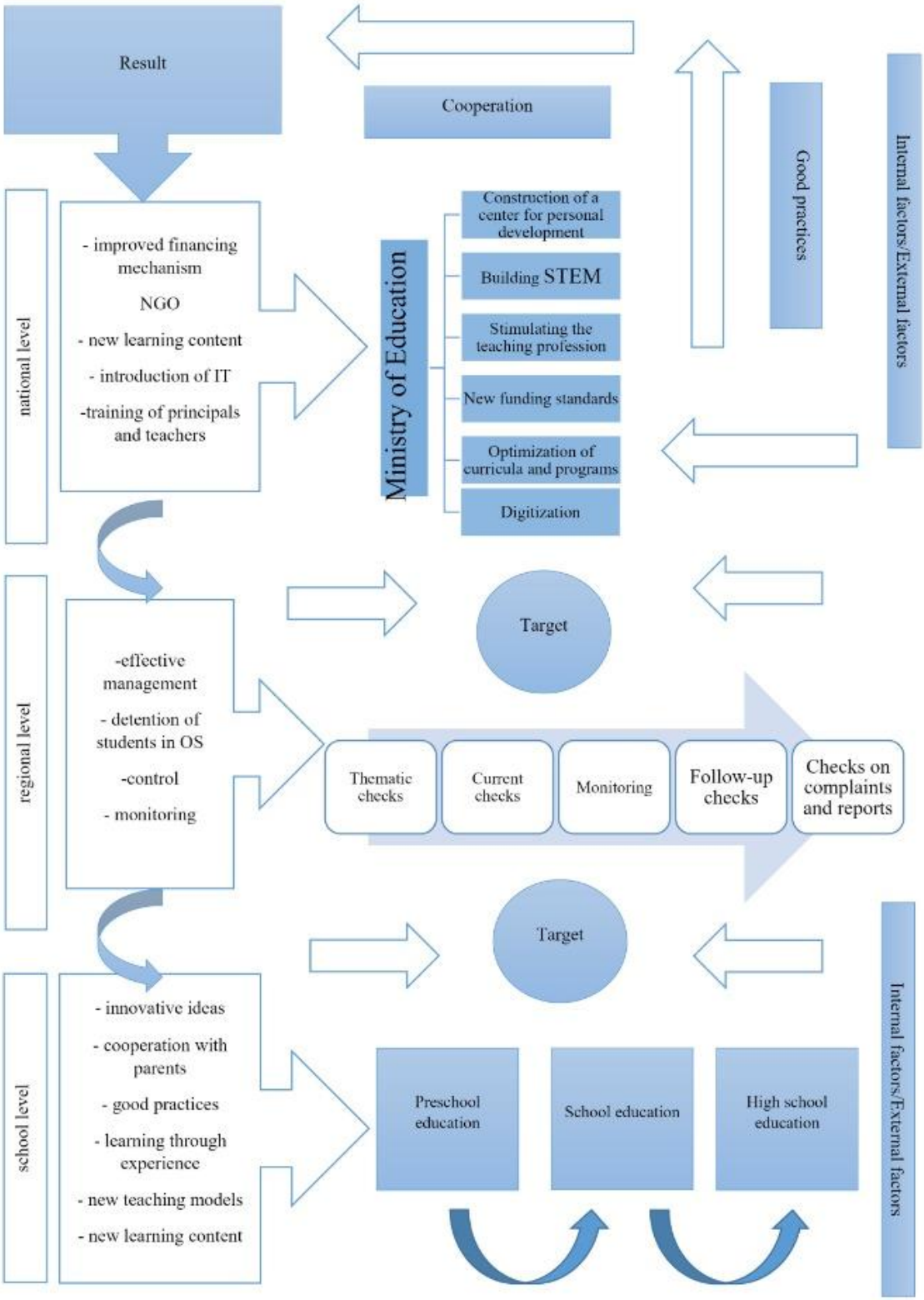


*Figure 18. Conceptual scheme of introduction/implementation/application of the entrepreneurial learning model*

The improvement of the educational mechanisms is a prerequisite for expanding the scope of the model and increasing the quality of the offered educational products and services. The main goal of training in an entrepreneurial spirit, which the current work offers, is aimed at *personal development in the direction of building entrepreneurial thinking and behaviour, increasing the entrepreneurial culture and the subsequent realization on the labour market* .

The **basis of the conceptual framework for the introduction** of the model is *the individual orientation of education, aimed at developing the personal potential of learners, increasing the commitment of all participants in the educational process and ensuring adequacy in relation to public needs and modern requirements for an educational system*. The application of the entrepreneurial learning model is understood as simultaneously and in the necessary logical connection using a set of appropriate innovative methods and means. ***The purposeful change*** is to increase *the effectiveness and efficiency of training while observing a specific type of relationship between an object and a subject of impact – they are not interchangeable, but they are relevant*.

The proposed entrepreneurial model of training can be considered as a kind of social innovation that improves both individual elements and the educational system as a whole, based on increasing the motivation of all participants at all levels, promoting leadership, demonstrating the active position and showing of an adequate response to changes in the environment.

***Training in an entrepreneurial spirit*** should take place in a dynamic educational environment in which: the student has a clear position regarding his needs; the student's expectations are justified in relation to the practical application of the acquired competences and the characteristics of the relevant entrepreneurial culture; the teacher, from the position of a lecturer, directs students to independent decision-making, respecting their individuality; in parallel with the quality of educational services. All this is expressed as a realized necessity in the goals set in **the National Program "Development of Scientific Research and Innovations in Bulgarian Preschool and School Education"** , which is present as a project proposal on the official page of the Ministry of Education and Culture from October 4, 2024. The program is expected to start in 2025 and be of four years duration. Overcoming socio-economic inequalities, equal access to education, digitalization, the creation of a positive educational environment, increasing the motivation of students occupy a priority place in the project proposal, for the implementation of which the Ministry of Education and Culture provides BGN 6,000,000.

In the context of the proposed options for the introduction and dissemination of the entrepreneurial model of training, Option 1 is preferred: **Introduction/implementation in the educational system of a *top-down* *entrepreneurial learning model.***

## EVALUATION OF HYPOTHESES

***The hypotheses*** formulated in the dissertation work are directly related to the priority educational areas set by society and the executive power, harmonized with the spirit of innovation and pre-reception education:

**Hypothesis 1:** *The successful implementation and promotion of an entrepreneurial learning model largely depends on the presence of entrepreneurial thinking and behaviour formed as a result of the permanent creation of an entrepreneurial culture.*

The introduction and spread of an entrepreneurial culture is based on the formation of an adequate entrepreneurial training model. Increasing the motivation of teachers, students, parents, management and administrative staff is a consequence of the development of the entrepreneurial approach, which is identified with the thinking and behaviour of the innovative entrepreneur. In front of the receiver is the person ready to invest all his time, efforts, knowledge, skills and means in achieving the desired goal, regardless of the risk factors, because he not only realizes, but also creates opportunities for the transformation of ideas into real value. This value is specific to different spheres of realization, but at its core is the building of a culture that we can boldly define as entrepreneurial. Its presence gives us the reason to confirm the applicability of **the first hypothesis** .

**Hypothesis 2:** *The introduction and popularization of an entrepreneurial – training model makes it possible to modernize each of the educational levels, helping to renew the overall appearance of the system, taking into account the influence of many external and internal factors.*

Each level of the education system is distinguished by its specificity. In order to change the appearance of the modern education system, it is necessary to distinguish the specific needs of each of the levels in the system (school, regional and national level). On the basis of the systematized features of the different educational levels, a regularity distinguishing the present is established, which defines the feasibility of **the second hypothesis.**

**Hypothesis 3:** *The introduction of the entrepreneurial learning model will largely eliminate the opposition of theoretical knowledge to practical experience based on experiential learning.*

The application of an entrepreneurial learning model implies complete synchronization between theoretical statements and practical requirements. This largely depends on the level of competence of the teachers, their willingness and their ability to balance between traditional methods and innovative practices. A real challenge for the modern teacher is the simultaneous use of the well-known traditional techniques in combination with the necessary interactive teaching methods. These statements are an

attempt to interpret the "original" question: Which has priority in learning – practice or theory? The answer to this question is contained in **the third hypothesis.**

The results of the empirical study are a form of effective control of priority problem areas in Bulgarian education. The proposed guidelines and recommendations are an excellent opportunity to achieve the expected results from the introduction of an entrepreneurial training model.

### *Summaries and conclusions from Chapter Three*

The implementation and popularization of the entrepreneurial learning model is the result of the entrepreneurial thinking and behaviour of the participants in the educational system, depending on the presence and characteristics of the entrepreneurial culture. For its part, the entrepreneurial culture visualizes the receiving model of learning through a set of theoretical statements and key competencies forming leadership qualities in the younger generation.

The modernization and renewal of the overall appearance of the educational system depends on many external and internal factors, the purpose of which is to introduce and popularize the entrepreneurial model of training at each of the educational levels. Responsibility for achieving the desired results is recognized by the legislative and executive powers, which does not exclude the personal commitment of each of the interested parties.

The correlation "theoretical knowledge – practical experience" is identified with learning through experience, which is also a fundamental goal of training in an entrepreneurial spirit. The discussed model is able to offer quality of educational services, taking into account the added value of innovative practices in the field of entrepreneurship.

In view of the discussed specificity of the entrepreneurial model of training, we visualize the effect of its application: acquisition of an entrepreneurial culture; formation of entrepreneurial thinking and behaviour; ability to make effective decisions; the ability to limit or eliminate risk and assume responsibility; fostering a competitive spirit and self-initiative.

In conclusion, we can summarize that the entrepreneurial learning model finds its deserved place in the educational paradigm, but its practical application remains a challenge for all educational structures.

## CONCLUSION

The permanent orientation of the educational system towards high results and competitiveness is a condition and prerequisite for affirming the priority role of the entrepreneurial model of education in the search for opportunities to innovate the overall appearance of the system. The use of innovative practices in combination with

established traditional methods of teaching and learning is associated with a number of difficulties and the overcoming of many challenges, but at the same time multidirectional positive effects are also reported. All this makes the entrepreneurial model of training attractive, and its implementation in the system of educational services – a source of real benefits. The application of an entrepreneurial learning model at all educational levels helps to increase the motivation for lifelong learning, for successful personal and professional realization.

In the current dissertation work, the essential aspects of the entrepreneurial model of training and its adaptation to all units of the Bulgarian education system have been investigated in theoretical and empirical terms, the main problem areas in the process of its diffusion have been outlined and specific guidelines for its improvement have been formulated. Emphasis is placed on primary, primary and secondary education.

**conclusions** and **generalizations** can be made :

**First.** The formation of an entrepreneurial culture requires a purposeful change in curricula and programs, especially those for acquiring secondary education, and the implementation of interconnected and consistent activities. This predetermines an analysis of the degree of knowledge on the part of principals, teachers and administrative staff of the nature and main characteristics of the entrepreneurial learning model, which will help to implement and spread many innovative practices.

**Second.** The introduction of the entrepreneurial model of education is influenced by a number of external and internal factors, which requires a detailed knowledge of them, contributing to the improvement of the opportunities for innovation of the Bulgarian education system.

**Third**. Providing an environment for successful implementation and subsequent improvement of the model requires building a network of school communities, encouraging and stimulating teachers and students to develop their potential by building entrepreneurial knowledge and skills.

**Fourth**. Success will be visible when efforts are directed towards building an effective communication system and periodic evaluation of results, while at the same time imposing the search for an individual approach, taking into account the specific characteristics of the human factor and acquired knowledge, skills and competences.

**Fifth.** The entrepreneurial approach is a flexible and adaptable form of organization of the educational process, which creates an opportunity for maximum use of the potential of trainers to achieve higher motivation among students in the performance of assigned tasks and create an attitude for good partner relationships.

The results of the theoretical-empirical study confirm the research thesis that the systematic renewal of educational units through various innovative methods and techniques in the process of building modern schools will lead to an increase in the quality of educational products/services and the results of the study process. For this

purpose, it is necessary to overcome a number of limiting conditions, but also to build a suitable environment for introducing and spreading the entrepreneurial training model.

Recommendations can be taken as a constructive dialogue that focuses on:

- ✓ Development of the students' personal potential, their social and emotional intelligence in conditions ensuring a smooth transition from family to school environment;
- ✓ Inclusion of learners from vulnerable groups and with special educational needs and limiting the possibility of their early dropping out of the education system;
- ✓ Restructuring of curricula and programs in sync with the requirements and expectations of the business environment;
- ✓ Updating educational programs for training and retraining of pedagogical specialists;
- ✓ Modernization of educational facilities;
- ✓ Involvement of parents as equal partners in the educational process;
- ✓ Development of the system for measuring the results achieved;
- ✓ Retention and attraction of pedagogical specialists;
- ✓ Expanding the spectrum of interests and building school project teams.

The obtained results offer an effective solution to the tasks set in the dissertation, exploring the possibilities of introducing and spreading the entrepreneurial learning model, formulating specific guidelines helping to improve its future development.

The added value of the present dissertation is expressed in the linked theoretical and empirical study of the educational system, innovations and the entrepreneurial model of education; the development and testing of a methodology for researching the entrepreneurial training model, on the basis of which a conceptual scheme for the introduction/implementation/application of the entrepreneurial training model is subsequently constructed and proposed.

## IV. REFERENCE ON THE MAIN CONTRIBUTING POINTS IN THE DISSERTATION

1. Based on a wide-ranging and critical research, the theoretical knowledge about the interaction between the educational system, innovation, entrepreneurial culture and the entrepreneurial learning model as an innovative practice aimed at increasing the quality of educational products/services has been enriched. The author's classification systematization of the types of innovations in the educational system and content-stage scope of the innovation process from the point of view of the educational system are presented.

2. Based on the theoretical research, a methodology was developed and tested for the analysis and evaluation of the possibilities for increasing the quality of the educational products/services through the introduction of the entrepreneurial model of training as a type of innovation in the educational system. The main problem areas and benefits of the implementation of educational innovations in Bulgaria have been identified.

3. Based on an empirical study, the possibilities for improving the quality of educational products/services by integrating the entrepreneurial learning model as a set of educational innovations at the school, regional and national level, and for realizing benefits from the formation and use of the entrepreneurial vision in the spirit of entrepreneurial thinking and behaviour in the Bulgarian education system.

4. On the basis of a systematic theoretical and empirical study, an author's Conceptual scheme for the introduction/implementation/application of the enterprise training model was developed, taking into account the influence of external and internal factors on the educational system, the specifics of the individual levels of integration – (school, regional and national level) and the opportunities to realize benefits from the introduction of innovative (good) educational practices.

## V. LIST OF PUBLICATIONS ON THE TOPIC OF THE DISSERTATION

***Articles:***

1. **Naydenova**, Snezhana (2023). Integration of educational innovations in Bulgarian schools. *Book of Proceedings. Economic and Social Development, 100th International Scientific Conference on Economic and Social Development – Economics, Management, Entrepreneurship and Innovations, Svishtov, 4-6 November 2023, pp. 20-26.* DOI:10.13140/RG.2.2.32717.82402. ISSN: 1849-7535. (Online) [article in issue indexed in EconLit secondary databases].
2. **Naydenova**, Snezhana (2022). The entrepreneurial model of training as an innovative practice in the educational system – problem areas, results and effects. *Annual Almanac PhD students Scientific Researches. Tsenov Academy of Economics.* 18.12.2022, *Svishtov: Tsenov Publishing House,* no. XV, Book 18, pp. 452-468. ISSN: 1313-6542.
3. **Naydenova** , Snezhana (2021). The strategic framework of the education system - problem areas and possible positive effects for the main participants. *Annual Almanac PhD students Scientific Researches. Tsenov Academy of Economics,* 12.10.2021, *Svishtov: Tsenov Publishing House*, no. XIV, Book 17, pp. 652-668. ISSN: 1313-6542.

***Reports:***

1. **Naydenova** , Snezhana (2024). Social networks and the social maturity of students. *Proceedings of Scientific and practical conference on the topic "Pedagogical communication – social and emotional".* 21-22.03.2024, UNWE, Sofia, pp. 266-272. ISBN: 978-619-00-1723-3.
2. **Naydenova** , Snezhana (2023). Entrepreneurial learning model as a system of key competencies. *Proceedings from International scientific and practical conference on the topic "The circular economy in the context of the relationship Industry 4.0-Society 5.0"*, Svishtov, October 21-22, 2022, *Svishtov: Tsenov Publishing House,* pp. 145-151. ISBN: 978-954-23-2249-8 (print), ISBN: 978-954-23-2250-4 (online).
3. **Naydenova** , Snezhana (2021). Innovations and innovation process in education. Snezhana Naydenova. *Proceedings of the International Scientific and Practical Conference on "Sustainable Development and Socio-Economic Cohesion in the XXI Century – Trends and Challenges"*. Svishtov, November 8-9, 2021, *Svishtov: Tsenov Publishing House,* vol. II, pp. 804-808, ISBN: 978-954-23-2069-2 (print), ISBN: 978-954-23-2070-8 (online).

## VI. REFERENCE FOR THE FULFILLMENT OF THE MINIMUM NATIONAL REQUIREMENTS IN CONNECTION WITH THE PROCEDURE FOR THE ACQUISITION OF THE DOCTOR

| Indicator | Points |
|---|---|
| **Group of indicators A.**<br>***Indicator 1. Dissertation work for the award of the educational and scientific degree "doctor".*** | |
| Innovations in the educational system in the context of the entrepreneurial learning model | 50 |
| ***The dissertation has been discussed and a procedure for its defense has been opened.*** | |
| **Group of indicators G.**<br>*Sum of indicators from 4 to 10* | |
| ***Indicator 7. Articles and reports published in non-refereed peer-reviewed journals or published in edited collective volumes*** | |
| ***7.1. Articles:*** | |
| **Naydenova**, Snezhana (2023). Integration of educational innovations in Bulgarian schools [Integration of educational innovations in the Bulgarian school]. *Book of Proceedings Economic and Social Development, 100th International Scientific Conference on Economic and Social Development – Economics, Management, Entrepreneurship and Innovations, Svishtov, 4-6 November 2023, 20-26.* DOI:10.13140/RG.2.2.32717.82402. ISSN 1849-7535. (Online) [article in issue indexed in EconLit secondary databases]. | 10 |
| **Naydenova** , Snezhana (2022). The entrepreneurial model of training as an innovative practice in the educational system - problem areas, results and effects. *Annual Almanac PhD students Scientific Researches. Tsenov Academy of Economics*, 18.12.2022, *Svishtov: Tsenov Publishing House,* XV, 18, 452-468. ISSN: 1313-6542. | 10 |
| **Naydenova** , Snezhana (2021). The strategic framework of the education system - problem areas and possible positive effects for the main participants. *Annual Almanac PhD students Scientific Researches. Tsenov Academy of Economics*, 12.10.2021, Svishtov: Tsenov Publishing House, XIV, 17, 652-668. ISSN: 1313-6542. | 10 |
| ***7.2. Reports:*** | |
| **Naydenova**, Snezhana (2024). Social networks and the social maturity of students. *Proceedings of the Scientific and practical conference on the topic "Pedagogical communication – social and emotional"*. 21-22.03.2024, UNWE, Sofia, 266-272. ISBN: 978-619-00-1723-3. | 10 |
| **Naydenova**, Snezhana (2023). Entrepreneurial learning model as a system of key competencies. *Proceedings of the International scientific and practical conference on the topic "The circular economy in the context of the relationship Industry 4.0-Society 5.0"* , October 21-22, 2022, *D. A. Tsenov Academy of Economics*, Svishtov, 145-151. ISBN: 978-954-23-2249-8 (print), ISBN: 978-954-23-2250-4 (online). | 10 |
| **Naydenova**, Snezhana (2021). Innovations and innovation process in education. *Proceedings of the International Scientific and Practical Conference on "Sustainable Development and Socio-Economic Cohesion in the XXI Century – Trends and Challenges"*. Svishtov, November 8-9, 2021, Svishtov: Tsenov Publishing House, II, 804-808, ISBN: 978-954-23-2069-2 (print), ISBN: 978-954-23-2070-8 (online) . | 10 |
| ***Total number of points scored - sum of indicators from 4 to 10*** | ***60*** |
| **Required number of points – sum of indicators from 4 to 10** | **30** |

## VII. LIST OF PARTICIPATIONS IN NATIONAL AND INTERNATIONAL SCIENTIFIC CONFERENCES AND FORUMS

**Conferences:**

1. Conference on Application of innovative methods and technologies in secondary education, VUZF – Sofia, March 21-22, 2024.
2. National scientific and practical conference on the topic Pedagogical communication – social and emotional, UNWE, Sofia, February 09-10, 2024.
3. 100th International Scientific Conference on Economic and Social Development – Economics, Management, Entrepreneurship and Innovations, DA Tsenov Academy of Economics, Svishtov, 04-06 November 2023.
4. International scientific and practical conference on the topic The circular economy in the context of the relationship Industry 4.0 – Society 5.0, D. A. Tsenov Academy of Economics, Svishtov, October 21-22, 2022.
5. International scientific and practical conference on Sustainable development and socio-economic cohesion in the 21st century – trends and challenges, D. A. Tsenov Academy of Economics, Svishtov, November 08-09, 2021.

**Doctoral Research Sessions:**

1. The Doctoral Research Session 2022, held on 02 December 2022.
2. Doctoral Research Session 2021 held on 17 December 2021

**Trainings:**

1. Training on Different Children – Online eTwinning training, 05 December 2023
2. Training on the topic "Pedagogical communication - social and emotional, UNWE, Sofia, February 09-10, 2023. *2 qualification credits acquired.*
3. Training on the topic Application of innovative methods and technologies in secondary education, VUZF, Sofia, March 21-22, 2024. *Acquired 1 qualification credit* .

**Projects:**

1. Vocational education is an investment project, Erasmus+, key activity K1, vocational education section, March 2024.
2. Vocational education is an investment project, Erasmus+, key activity K1, vocational education section, April 2023.

## VIII. DECLARATION OF ORIGINALITY AND AUTHENTICITY

by Snezhana Veselinova Naydenova

In connection with the procedure for obtaining the educational and scientific degree "doctor" in the doctoral program "Economics and Management" (Industry), I declare:

1. The results and contributions in the dissertation work on the topic “Innovations in the educational system in the context of the entrepreneurial learning model” are original and are not borrowed from research and publications in which the author has no participation.

2. The information presented by the author, in the form of copies of documents and publications, personally compiled references, etc. corresponds to objective truth.

3. The results obtained, described and/or published by other authors are duly and extensively cited in the bibliography.

Declarant:

Svishtov /Snezhana Naydenova/