

EDUCATION – A PILLAR OF SUPPORT FOR NATIONAL UNITY AND FREEDOM OF CONSCIENCE

Emilia VASILE, Prof. PhD

Athenaeum University, Bucharest
rector@univath.ro

Otilia MANTA, Lecturer PhD

Athenaeum University, Bucharest
otilia.manta@univath.ro; otilia.manta@rgic.ro

Abstract: At 100 years of sustainability of the Romanian educational system, we believe that the individual will be the focus of the future of society with its needs, which will be more complex and varied, in the context in which values like diversity, equal opportunities, creativity, transparency and flexibility will be the most important values of the future society. Economic and social cohesion has been a long-term and will be a decisive factor in the current context of population growth, migration and geopolitical change, increasing the diversity, but also the aging of some societies (Romanian Development Strategy for the next 20 years, Romanian Academy). The inheritance that we are going to leave to the future generation is what we will do with responsibility, what we are currently in the position of decision-making, and who act directly on building the present and direct influence on a desirable and sustainable future.

Keywords: education, sustainability, society, values and science

JEL classification codes: I23, I25 and Q56

The scientific approach is based mainly on the impact of the *National Education System (SNE)* on the development of society and, according to the specialists of the times, “has led to the identification of causes and constraints and, in a systemic manner, proposed solutions with the greatest possible societal impact” (*Romania’s Development Strategy over*

the next 20 years, Romanian Academy), which at our level of each of those involved in the education system should and should be concerned with identifying the most optimal solutions for the didactic act so that we can contribute directly and unconditionally to an educated society, education being, from our point of view, one of the pillars of the sustainable development of society alongside with culture, health and the economic environment.

In a knowledge-based society in which information technology and communications play an essential role and the fourth industrial revolution is already predominant in the most developed economies, it is necessary to redefine the level of education and professional training of citizens called upon to implement the principles which underpin sustainable socio-economic development. In this context, in addition to knowledge, it is necessary to develop the capacity to innovate, to create new, competitive products and processes to capitalize on the skills, skills and knowledge of different individuals who work together to achieve a common goal in a context global performance. (*Romanian Development Strategy for the next 20 years, Romanian Academy*).

The *National Education System* has a decisive role in the formation of individuals by providing the necessary knowledge and skills for the social environment, and through the didactic act to ensure their development and evolution according to the principles of the knowledge-based society. However, this is possible through the flexibility and adaptability to the requirements of an economy of the whole educational system and a constantly changing society, which requires the reorientation of education and learning from the 3-year limitation to the lifelong learning system, in an organized and efficient “*long life learning*” system.

Moreover, for the sustainable development of society as a whole it requires knowledge in all fields, and especially in economic and financial terms, financial education must be introduced into the national education system as a support component at the earliest age.

The phenomenon of “*educational and professional mobility*” represents another challenge of the moment, namely the adaptation to the requirements of the labor market, presupposes a continuous process of professional training, accumulation of new knowledge and skills, in accordance with the evolution of science and technology, of the economy

and society. The *orientation of vocational training* towards the need of the society, namely the personalization of the learning process and the increase of the efficiency of the training process for the professional training, increasingly imply the adaptation and adoption of new concepts and customized modules in a manner that correlates the vocation, the interest and the individual aspirations that lead to the characterization of the personality of the individual and his specific role in society as a direct beneficiary of the education process.

It is necessary to implement in the national education system the four pillars suggested by Delors¹ - to learn to learn, to learn to do, to learn to live with others and to learn to exist - between which there is an indissoluble “trans-relationship”, none of these pillars except in a solid connection with others. Trans-disciplinary education must take into account both the mind and the sensibility and the body of the human being, the student and the teacher not being antagonistic or inferior to the first of the second, but to a close interdependence, is successively in the teaching process. Along with these pillars, Basarab Nicolescu added one more - “learning to transform yourself and change society.” School teaches you to learn, to constantly adapt to societal requirements. (*Romanian Development Strategy over the next 20 years, Romanian Academy*).

Multidisciplinarity and lifelong learning are defining elements for the current education system that needs to be flexible and continually adapted to the increasing needs of skills and abilities needed by the knowledge-based economy. Unidisciplinary training remains an element of the past and is gradually losing its efficiency, increasingly imposing training based on complex (multidisciplinary, interdisciplinary, intradisciplinary and transdisciplinary) problem solving that provides support for training for current professions, new professions that are still unknown, and adapting to the current labor market change.

In the current context, the main purpose of education is not only the accumulation of knowledge and the acquisition of skills, but also the modelling of characters. Moreover, the current challenges of virtual space make the individual access to virtual information sources, which makes the process of education more and more complex following these factors, and teachers have to carry out their act of learning by using procedures, appropriate policies and strategies, which requires a balance between

theory and practice. Educational entities (general schools, colleges, universities) have every reason to understand that we are at a historical point where all these challenges make lifelong learning and vocational training for the labor market a decisive role.

An important role of the education system based on modules and oriented to the real needs of society is given by the teachers who have the role both in counselling the pupils and orientation according to the potential and capabilities of each, defining for each student a formative trajectory and the modules necessary for a personalized education.

Preparing individuals for life and society, for current labor market requirements and career progression, implies: flexibility of intelligent and rational thinking; early learning of learning mechanisms and their transformation into attractive means for personal development; identifying trends in science and technology and preparing for new professions, the predictive character of the formative process; understanding the world in which we are evolving, the impact of globalization, the challenges faced by mankind - related to energy resources, global warming, water, food, health, etc. ; understanding the role and importance of continuing education (lifelong learning), preparing for an active life, and continually adapting to societal requirements; Understanding civilization that creates roles / values and pursuing the universality that characterizes it; building skills for work, encouraging creative and innovative spirit; respect for partners and competitors.

The *National Education System* has the essential role of ensuring a high level of education of the population, of preparing the future citizens for the knowledge-based society and of identifying and developing the future elites of the Romanian society, of ensuring civic education, the formation of traits ethical and behavioural behavior appropriate to societal civilization.

The spectacular evolution of technology, computing and communication systems requires, as a necessity, the training of the population to be compatible with and to make effective use of the advancement of digital technology. Education at all levels is one of the most important factors in reducing / eliminating economic, social, cultural and technological disparities.

The *Romanian Academy* has made *Romania's Development Strategy for the next 20 years presenting the vision for Romania educated until 2038*. In 2038, Romania is expected to be a country with a dynamic and competitive economy whose innovation capacity is compatible with a knowledge-based society that could be positioned among the top ten countries of Europe, such as economy, education and living standards. The Romanian people will be educated, worthy and proud, both of their historical and cultural identity and heritage, as well as of their contribution to the development of society. The population's mentality will be based on the appreciation of work and the recognition of performance, the desire for personal and social development, citizenship and responsibility towards society and the environment. Accumulating and capitalizing on knowledge and skills will be one of the most important incentives for evolution. The socio-economic climate resulting from this change of mentality will be an important prerequisite for halting the exodus of the population and returning a significant percentage of those leaving the country. The basis of this evolution is the national education system (SNE), through which, in conjunction with those of parents and society in general, a new generation of citizens, exponents of the creative society, based on knowledge and development factors at the level globally.

The evolution of society is based on individuals, whose level of competence contributes to the sustainable development of the country. The economy will be geared to areas that will ensure, on the one hand, the sustainability and development of a high and healthy lifestyle (sustainable precision farming) and, on the other hand, high value added products and processes (digital economy) and with low environmental impact ("smart manufacturing"), based on new materials and technologies. Prompt and effective measures are needed to redress the situation, rethink the SNE, restructure and support scientific research and innovation. It should be made aware at all levels that any investment and infrastructure costs will, in the long run, be totally ineffective, without the formation of human resources, able to analyze and exploit the development opportunities offered by the global economic and social context, correct predictions of evolution and assume the decisions taken. The creation of this human resource is most relevant to the educational process.

Through the Education Strategy project, we are proposing an innovative, conceptual framework for human resources training and development, in line with the knowledge-based and innovation-driven society's requirements in an ever-changing global context. The basis for this project must be a set of ideas and concepts, among which education: it is the strategic factor of the future development of the country through its major contribution to the shaping of human capital; must be perceived as a path to sustainable development, a process of social learning and the search for innovative solutions; contributes substantially to the formation of good citizens with communication and professional skills, enabling them to achieve optimal social integration.

The strategy proposes a global vision for the restructuring and development of the entire education and training system, in close correlation with the evolution of the Romanian society towards the knowledge society. Social cohesion will be a decisive factor in the context of population growth, migration and geopolitical change, increasing diversity, and aging societies.

In 2038, the welfare of the world will increasingly depend on the capital of knowledge, and the challenge of perceiving and understanding the world will become major. The school will gain new valences, and universities will play a key role in shaping future specialists, connected to real society requirements, perceived as significant geopolitical and geostrategic actors in advanced research, training, and cultural and civic experiences. The personalization and diversity of formative programs will be key attributes of a learning system that focuses on learning, individual skills and competencies, but a connectivity society. Educational institutions will be differentiated according to purpose, objectives, and depending on who they are addressing, depending on how they do it. Thus, the organizational culture of the educational institutions is cultivated, their personality.

A coherent strategy for the development of SEN is proposed, starting from its performance, citizens' status and level of education, Romania's economic and social performance, in the context of globalization and the requirements of increasing competitiveness in the developed European countries. In its elaboration it was envisaged the coherent harmonization of the reactive and the proactive approach,

establishing strategic targets and specific actions for implementation. The defining elements for the SNE-2038 vision can be synthesized systemically into a complex structure: the need for education will be greater in the context of a dynamic society subject to technological pressures. The new industrial evolution will impose new professions, broad-based opposition, in a society based on connectivity, collaboration and knowledge; education will be more and more personalized, the citizens of the new society will learn more dynamically, at a pace, as a requirement of the new society, but also with the pleasure of being creative and competitive; the dynamics of the professions will lead to mobility and job change, and the autonomy of career choice will be strongly influenced by the level of education, culture and knowledge; the boundaries between career, personal development and leisure will blur in the context of increasing communication, flexibility, creativity and mobility; social and knowledge networks will play a decisive role in a flexible social context in which personal life and work are intertwined and complemented; employers and employees will collaborate creatively on company development and personal development through an advanced KM and through the creation and development of organizational culture; man constantly learns to define freely and dynamically his own roles in a continually evolving cognitive society; each student will have the freedom to build his / her educational path both from the point of view of his / her skills and from the moment and the form in which he / she wants to do it. The modularity of the education system will ensure the possibility of acquiring skills in a flexible manner, both in terms of structured knowledge and learning duration; children and students will be aware of the need to gain knowledge, will increasingly appreciate their creative capacity and will be involved in the formative process to harness their own potential. They will understand that without knowledge and without understanding the surrounding world they have little chance of development in a dynamic society where technology, science, culture and art are the essential elements of communication; individual freedom and career flexibility will increase the interest in education and the members of the new society will approach life creatively, constantly adapting to the evolution of society. Society will urge citizens to learn more, to be better prepared, more adaptable to a changing world.

Starting from these prerequisites, the objectives and targets for the restructuring of the SNE in a competitive system, which will ensure Romania's 10th position in Europe, from the point of view of education, of the level of training of the population, are defined. In relation to the factual state described, the main strategic lines can be developed and operationalized so that Romania is placed in the top 10 countries of the European Union, from the perspective of the performance and competitiveness of the education system (SNE), the vast majority of the students and students will consider their learning and study programs as essential, motivating and important for their future, allocating significant financial resources for recalibrating the education system and increasing the competitiveness of scientific research (at least 6% of GDP for Education and min. 3% of GDP for Scientific Research, according to multiannual schemes) and the teaching profession will become one of the most respected and sought-after in the labor market.

Romania educated according to *Romania's Development Strategy 2038*, developed by the Romanian Academy, will be characterized by: a country of knowledge with an economy based on innovation and creativity, globally competitive; an educated, united, dignified and proud people of his identity and his contribution to the global development of society; a society educated in the spirit of respect for the values of humanity for life, for work, for the accumulation and valorisation of knowledge; society with real contributions to the cultural, scientific and technological thesaurus of mankind; the human intellectual capital will have an essential role for the socio-economic development of the country; education and scientific research will be real priorities in the process of global cooperation and competition;

7 *VALUES* necessary for the Romanian educational system to be reconsidered and reinterpreted on a profoundly democratic and highly performing axiological foundation, characterized by: *Trust, Flexibility, Diversity, Excellence, Equity, Transparency, Well-being*. This set of 7 values needs public support and the actual presence of a transpolitical agreement committed to supporting, based on these values, the strategic priorities listed and explained below. The role of these values is transversal. All identified priorities, all policy projects will refer and will be based on these.

Recovering people's trust in the education system, the people who represent it, and the social, professional and personal benefits of learning are a prerequisite for any serious change in education. Trust is made through consistency and consistency at decision-making level, policies, commitment to quality and performance of system professionals, explicit social valorisation of learning, and learners. Every generation needs to be trusted by each student to create them all the conditions they need to succeed. Excellency means aiming as much as possible, wanting and generating learning to be the best, but also to be fair and equitable with all, means well-being and the development of the sense of belonging to family, school, the educational and community environment large.

The performance we want is authentic, sustainable, accompanied by a state of social and emotional balance of those involved in education processes.

Analyzing not only the visible problems and challenges facing our education system but also its partially successful or unsuccessful attempts to change, along with the development directions of the major education systems in the world, we propose a number of 12 educational policy: strategic transformation and improvement directions that we have shared on three levels:

- *structural-systemic, comprehensive, national;*
- *institutional, education providers, education and training institutions that make up the system;*
- *processual, perhaps most important, of the way in which the actors of the system interact, work, design and vigorously pursue bold targets.*

The rethinking of the entire national education system, in the context of the evolution of science and technology, of the global sustainable development, in accordance with the requirements of the cognitive society and the social and individual transformations, specific to the last years; developing a strategy for training and educating human resources is a key objective for relaunching and bringing Romania to Europe's strong nations; the correlation of the training and human resources development strategy with the medium and long-term development strategy of the country.

Structural-systemic level

Value / axiological redefinition of the Romanian education system (fundamental values and principles).

Structural Balancing of the Romanian Educational System (Cycles, Levels, Transitions).

Professionalize the process of developing, implementing and evaluating educational policies (professional agencies, analysis, participation, impact).

Prioritization of sectoral policies: Early education, promotion of mathematics, science and technology education, teacher training, vocational and technical education (logistical and scientific funding and support).

Institutional level

Autonomy, responsibility and decentralization - redefining the school-community relationship in the education process / strong university in society.

Access to education and an educational path without abandonment, equity and performance at the same time.

Processual level

Genuine learning experiences for pupils and students (quality of the learning process).

Flexible and relevant learning paths through a curriculum centered on the skills needed for personal development and the knowledge economy (curriculum quality and relevance of qualifications).

Access to educational support services: counselling and guidance, social and emotional welfare, remedial teaching, special needs assistance, etc. (the quality of learning support).

Social Presence for Education Professionals and Socio-Economic Valuation of Learning

Education and training of citizens, in the spirit of the sustainable development of the knowledge-based society, is a process as complex as it is necessary. The requirements of the medium and long-term development of Romanian society, in the context of the major challenges of this century, require the rethinking and restructuring of the whole system of education and training of citizens. The profound transformation of education at the conceptual, systemic, paradigmatic and additional level can not be done professionally and democratically, without the support of a coherent strategic ensemble given by the public policy direction transformed into a project of prioritized policies, programs and projects.

Education is a task of the whole society; *Educated Romanians* can not be built otherwise than through a broad public participation and

involvement, starting with parents, educators, teachers, governors and the business community.

For comparison, Table 1 shows the percentages and amounts (in billions of Euro) allocated to education by a group of European countries (according to Eurostat data for 2013):

Table 1. Allocating funds for education in some European countries

Country	Percentage of GDP	Total Value (billions euro)
Poland	5	19,500
Hungary	4,15	4,042
Slovakia	4,12	2,972
Czech Republic	4,16	6,225
Italy	4,28	66,827
Slovenia	5,22	1,840
Portugal	5,34	8,848
Romania	2,70	3,846

Source: Romania's Development Strategy over the next 20 years, Romanian Academy

It is clear, therefore, that a substantial increase in the funds earmarked for education and research is needed in order to catch up with the advanced countries.

Table 2. Education expenditure as% of GDP
in the years 2000, 2007 and 2011

EU (28 țări)	2000			2007			2011		
	Publice	Private	TOTAL	Publice 4,92	Private 0,71	TOTAL 5,63	Publice 5,25	Private 0,74	TOTAL 5,99
Romania	2,88	0,25	3,13	4,25	0,5	4,75	3,07	0,11	3,18
Cehia	3,83	0,4	4,23	4,05	0,5	4,55	4,51	0,59	5,1
Ungaria	4,5	0,58	5,08	5,29	:		4,71	:	
Polonia	4,87	:		4,91	0,5	5,41	4,94	0,7	5,64
Slovacia	3,92	0,15	4,07	3,62	0,53	4,15	4,06	0,62	4,68

Source: Eurostat, latest data available 10 Dec 2016

Table no.3. Estimates of the share of total expenditure on education in GDP (%) for the years 2020, 2028 and 2038, highlighting scenarios for Romania

	2020	2028	2038
UE27	6,2	6,7	7,0
Romania			
optimistic scenario	5	5,5	6
the realistic scenario	4,5	5	6
the pessimistic scenario	4	4,5	5
Czech Republic	5,5	6,1	6,5
Hungary (only public)	5,8	6,4	6,7
Poland	5,9	6,5	6,8
Slovakia	5,0	5,6	5,9

Source: Team estimates of Romania's Development Strategy over the next 20 years, Romanian Academy, based on Eurostat data

Conclusion

Restructuring and rethinking the entire SNE is a priority objective of strategic importance and a determining factor for Romania's sustainable development over the next 20 years. Education is the strategic factor of the country's future development through multi-regional and forward-looking modelling of human capital.

By implementing and operationalizing Romania's Development Strategy over the next 20 years, the Romanian Academy aims at:

Developing human capital and increasing competitiveness by linking education and lifelong learning to the labor market. In order to ensure access to and participation in quality education and training, it is necessary to solve the problems related to decentralization, increasing the autonomy and responsibility of educational units, implementing efficient quality assurance mechanisms, promoting excellence in the formative act, flexibility of formative programs, educational campuses, the efficient use of modern means in the formative process and the creation of an

efficient legislative framework for the improvement and stimulation of the teaching staff, teachers and auxiliary staff.

Achieve average EU performance in education and training in 2028 and achieve Romania's target for Romania's 10th SNE country.

In this respect, it is envisaged: to restructure the education cycles in line with the national qualifications register, to develop the capacity and institutional innovation by promoting knowledge management, autonomy and responsibility, professionalising the educational management, opening up the formal education system, developing the logistics base and SNE infrastructure, extending transdisciplinary programs and opening up new professions in the context of science and technology, correlating professional training with the requirements of smart specialization, supporting digital literacy programs and quality education in rural areas.

Restructuring and streamlining of R & D activities and integrating Romanian research into the main flow of science and technology evolution by connecting to the most advanced creative and innovation centers at international level, by stimulating creativity and innovation, excellence and competitiveness.

It is also necessary to rethink the productive economic sectors, based on major results from areas such as ICT, biotechnology, nanotechnology, materials and biomaterials, etc. with the implementation of Cyber Physical Systems paradigm in all economic sectors, and capitalizing on progress in Internet of Things, Internet of Services. It is important to bear in mind that the provision of the human resources necessary for the development of a field depends essentially on estimates made in advance in this respect and the real and concrete involvement of economic actors in the development of SNE is fundamental.

School population may vary locally as a result of labor mobility, job availability may be reduced or may increase sharply, depending on external events difficult to anticipate, EU financial resources risk being limited, but the system development strategy education must be robust to these disturbances.

Special attention should be paid to agriculture, implementing the concepts of sustainable, efficient and environmentally friendly agriculture. It will be possible to capitalize on the real agricultural potential of Romania in the context of sustainable development. In this sense it is necessary to rethink the agricultural research and to support

the training of experts in the field, the formation of small agricultural entrepreneurs, the restructuring of the Romanian village.

In this respect, a preliminary estimate of the necessary financial resources is 7% of GDP for the first 10 years and, according to the results, the return to a minimum of 6%, ensured in a transparent and predictable way, based on a plan of multiannual funding, in the context in which the objective in question clearly justifies the necessary legislative change.

Thus, it is necessary to approve SNE budgets through a special organic law that ensures continuity, predictability, transparency and stability in the medium and long term, assumed by all decision makers. At the same time, it is necessary to ensure all the conditions for implementing the strategy and to increase the responsibility of all the actors involved in the SNE (teachers, pupils, students, parents).

Bibliography

The paper was developed on the basis of the Romania's development strategy for the next 20 years, Romanian Academy, 2017, research team: Prof. dr. eng. Ioan DUMITRACHE – coordinator, m.c. of the Romanian Academy, Acad. Emil BURZO, Acad. Ioan-Aurel POP, Prof. Dr. Mircea DUMITRU, Ph.D. of the Romanian Academy, Prof. dr. Romița IUCU, Prof. dr. Lucian CIOLAN, Prof. dr. Vasile PÂRVULESCU, Prof. eng. Ecaterina ANDRONESCU, Prof. dr. Simona Iuliana CARAMIHAI, Prof. dr. Romeo SUSAN-RESIGA , Prof. dr. Radu MUNTEANU, Prof. dr. Daniel DAVID, Prof. dr. Valer Daniel BREAZ, Prof. dr. George CAZACU, Prof. Octavian Florin POLEX, Prof. Sever POPA, Prof. Florin COLCEAG, Prof. Carmen Gabriela BOSTAN, Elena-Nicoleta MIRCEA