

## **Evolutions of Educational Systems and Paradigms in the Knowledge-Based Society**

**PhD Associate Professor Simona Marin  
Postdoctoral Grant Recipient,  
Romanian Academy, Iasi Branch**

**Abstract:** *The new educational policies, launched at European and national level, continue the reform orientations registered so far and bring them up to date. Thus, international conventions, official European institutions, as well as the new legislation in our country reinstate, for example, the end results of the child-focused education and the competence-focused curriculum. The process generated at the level of European states gains specific particularities which may be highlighted by illustrating the itinerary of our country. The orientations, the principles, the paradigms adopted at global and European level have started being established at national level by elaborating some educational policies which have become legislative regulations. The higher education has undergone profound transformations, as the latest years have required a series of changes meant to re-establish the value of institutions at this level and to generate better forms and structures for professional human resource training. The insistence on and the attention paid to higher education both at European and at national level constitute a manner of officially acknowledging the social importance and the impact of the academic domain on the global evolution of the world.*

**Key words:** *knowledge-based society, educational policies, changes in the educational system, educational paradigms.*

### **The evolution of educational paradigms: from “the century of the child” to “the knowledge-based society”**

Educational systems and paradigms have registered multiple normal transformations, tendencies and evolutions, if we think that education is a domain strongly connected to the social, economic and cultural dynamics and changes. The beginning of the 20<sup>th</sup> century was marked by a powerful reform movement concerning school and education according to the ideas of great thinkers such as John Dewey, Maria Montessori, Alfred Binet or Ellen Kay. The change envisaged was profound and aimed at switching from a magister-focused approach, where the professor was dominant in the educational process, to a child-focused perspective, which would orient the attention of the entire educational system towards the child and “have all pedagogical aspects gravitate” [1] around the child. The echoes of the new educational trend were so powerful that the beginning of the 20<sup>th</sup> century was named “the century of the child.” In a comeback, cyclic from a historical and pedagogical point of view, we may say that the beginning of the 21<sup>st</sup> century can also be characterized as a time of profound social and educational changes, with objectives surprisingly similar to times long passed. The new educational policies, launched at European and national level, continue the reform orientations registered so far and bring them up to date. Thus, international conventions, official European institutions, as well as the new legislation in our country reinstate the end results of the child-focused education and the competence-focused curriculum.

The scientific intent of this study is to render the evolutions of educational paradigms and to identify their effects on educational systems, with particular focus on higher education. The hypotheses are crayoned around some fundamental questions:

- Can we establish a reference point or a crossroads in rethinking the educational domain?
- Which is the context of the new educational policies at European and national level?
- How do these new orientations blend into the concrete plan for higher education in our country?
- What actions can be initiated on short, medium and long term in order to enhance quality in higher education?

The process of looking for some answers generated an analytical approach, organized as pedagogical research based on a qualitative methodology by using the study of European and

national educational policy documents, case study and interviews with members of the university communities – professors and students.

The study of the literature of specialty and of educational policy documents reveal the pedagogical thinking at a crossroads, when we can consider the new educational paradigms launched, which generated ample transformations at the end of the 20<sup>th</sup> century and which are in full development now, ten years after the beginning of the 21<sup>st</sup> century. Temporally, the moment is set in 1999 when the European civilization managed to adopt a series of international conventions considered fundamental for the reforms of educational systems at European and national level. *The Bologna Process* and *the Lisbon Process* are regarded as reference points for current changes in the educational domain, landmarks that we shall approach synthetically in this paper, aiming at later mediation on the effects experienced in reality and on the possible orientations required so as to optimize results in the field of professional human resource training in education.

The new paradigm of the knowledge-based society has brought about the global movement of restructuring the educational systems initiated in 1999, managing to unite 29 states signing the new policies and registering an ulterior evolution of up to 47 states currently. The expansion emphasizes the fact that the European countries have acknowledged the problems that the national educational systems are facing and the inner and outer challenges regarding the increase and diversification of curriculum, the graduates' employment possibilities, the existence of a common framework of qualifications and competences, the establishment of key competences, or the development of private educational institutions and trans-national education. The policies and the programmes launched display such a wide scope that surpasses the European space, being supported by the European Commission by aid offered for reforms in higher education in neighbouring EU countries by means of various programmes, especially the *Tempus* programme. Relationships with other continents are supported by a series of bi- or multilateral cooperation programmes, such as *EU – USA/Canada*, *Asia-Link*, *Edu-Link*, *ALFA* and *ALBAN* for Latin America and the new *Nyerere* programme for Africa. The Erasmus Mundus programme is conceived so as to overcome any border limitation and provides scholarships for students all over the world who wish to study within study programmes in different European countries.

Hoping to become a part of the West-European society structures, Romania had to aim at the fundamental objective of *the Lisbon Process* which set the transformation “into the most *competitive* and dynamic economy based on *knowledge*, capable of supporting economic growth by creating more jobs and achieving better social cohesion.” [2] Within the European Union, citizens' competences are the main factors of innovation, productivity and competitiveness, which means that European citizens must create their own mechanisms that would allow them to adapt to change, not only to permanently bring their knowledge up to date. *The European Framework of Key Competences for Education* [3], adopted at European level in 2006, defines competences for life as being “key competences” necessary for personal fulfillment, social inclusion, active citizenship and employability in the knowledge-based society. These represent a multifunctional package of knowledge, skills and attitudes that all individuals need for personal fulfillment and development, for inclusion and getting a job. Educational systems, pre-university and higher education, as well as professional training systems must align with these orientations in the future and must generate such competences in youth and adults. The necessity of this project is more clearly supported at the level of higher education by the direct involvement of member states' governments which agreed to *The Charter of European Universities Concerning Permanent Education* [4].

### **The new educational policies between wish and reality – case study**

The process generated at the level of European states gains specific particularities which may be emphasized by illustrating the itinerary of our country. The new orientations, the principles, the paradigms adopted at global and European level have started being established at national level by elaborating some educational policies which have become legislative regulations. The higher education has undergone profound transformations, as the latest years have required a series of

changes meant to re-establish the value of institutions at this level and to generate better forms and structures for professional human resource training. The insistence on and the attention paid to higher education both at European and at national level constitute a manner of officially acknowledging the social importance and the impact of the academic domain on the global evolution of the world.

The changes are numerous and of such a wide scope that it is difficult to name them without accepting that they cannot be exhaustively covered. Moreover, we can talk about a particular phenomenon we came across during our investigation: even if all interviews conducted with members of the university community revealed major structural changes, such as the reorganization of curricula, the expansion of transferrable credit system, the implementation of evaluation and quality ensuring mechanisms, they also emphasized elements that may appear secondary, but which reflect the daily activity, where education actually takes place. We further present the most relevant results obtained from the qualitative study of data.

The highest frequency in professors' accounts belongs to the topic which constitutes an absolute novelty for our system, namely the recently completed *process of establishing a hierarchy of universities and study domains*. The impact of this new evaluation was of almost maximum level, as over 80% of the people interviewed mentioned the change and its effects. Correlating these results with the specific legislation and with the new educational policy orientation, we may state that excellence in scientific research and quality in education will constitute the vectors of the development of educational institutions from the perspective of the strategic objective of *classifying universities and curricula on a higher level in the process of establishing a hierarchy of educational institutions and scientific domains*. Obtaining ever better results in the didactic and research component implies meeting reference standards specific to each domain, but also an integrated approach to them so that, by means of the didactic, we might lay the foundations of research and capitalize on its results.

The challenges and the complexity of the didactic and the research activity will have some dominant determinants as resources:

- the objective of preserving the curricula which ranked in the A excellence category and transferring as many programmes as possible to superior categories;
- the necessity to render compatible study programmes and competences provided by various sections as compared with specific professional standards in the field, according to the requirements of the job market and of the National Framework for Competences in Higher Education;
- identifying and capitalizing on new opportunities of providing university graduates with jobs;
- obtaining and contracting new programmes, projects, grants concerning research, innovation and development;
- stimulating research centres on scientific domains and interdisciplinary approaches.

Although directly correlated with the topic of establishing a hierarchy of universities, *the level of students' qualification* ranks second in the investigation we conducted. Mention must be made here of the active learning paradigms and efficient teaching conditions established as early as the previous century, perfectly valid at any time, regarded as a demonstrable solution, efficient in enhancing results and developing professional competences. Success implies that, in the process of unfolding didactic activities – courses, seminars, laboratories, specialty practice – activities should rely on means of stimulating the learning motivation and of optimizing didactic style by adopting some training strategies specific to adult education.

Better results in student training will be obtained by updating and adapting graduates' knowledge and skills to professional standards specific to the domain and by professional involvement on the part of each partner, so that it might generate gradual learning able to lead to overcoming the primary level of receptive-reproductive learning and facilitate mind exercise at the superior levels of intelligent learning, study and interpretation of acquisitions, operational and

creative learning. Didactic guidance becomes efficient and generates authentic, sustainable learning by means of methods and techniques that call on and develop thinking at all operational levels – analysis, synthesis, argumentation, comparison, association, generalization, concretization, creation [5].

As the main source of learning, teaching displays the decisive role in developing students' scientific curiosity, creative intelligence, critical and analytical thinking; thus, attention will have to be paid to the good correlation and coherence of the team of professors who deliver courses, seminars, laboratories and practice, as it is very important for the enhancement of results as the updated scientific, systematic, accessible, stimulating, interactive presentation of the domain issue / subject to have the course activities be logically continued by the thorough study and systemization of knowledge, capabilities, skills, competences of the student, as well as the development of attitude qualities specific to the domain by seminar / practical work activities.

The study of interviews allowed us to remark some aspects that we may regard as **vulnerable points in higher education**: the difficulty in changing and adapting curriculum content and strategies for approaching university didactic activities in order to integrate the latest evolutions in the field; insufficiently developed practices concerning assisting – supporting – stimulating students with high learning performances and retrieving those with learning difficulties; insufficient data on inserting graduates on the job market and on continuous process of professional training by entering university studies such as master's, PhD, post-PhD programmes; insufficiently developed structures and practices concerning educational and professional assisting – supporting – orienting – guiding.

The solutions to such problems of the Romanian higher education have various sources. Obtaining performance in education and research can turn from wish into reality if we hope and initiate a scientific approach by studying pedagogical literature and selecting theories, principles, methodologies adequate to adult education. We can illustrate it by some aspects specific to higher education:

- capitalizing on the students' bio-psychological-social potential by observing the particularities specific to their level of development;
- the interdisciplinary and modular approach to the issue of the scientific domain;
- ensuring a balanced ratio of theory and practice with a view to training capabilities necessary to socio-professional integration;
- ensuring awareness of systemization and continuity of content elements in the education process;
- promoting the educational partnership between professor and student and a stimulating socio-affective climate, each assuming the responsibility of achieving the educational results, explained and discussed from the perspective of their relevance to students' development;
- getting the student involved, as an active subject of learning, in the didactic activity, by using interactive educational strategies;
- ensuring equal chances in education by differentiating and individualizing in the teaching-learning-evaluating activity;
- observing the rights associated with the student status so as to avoid forms of exclusivist behaviour, intolerance and discrimination;
- motivating learning by providing permanent feed-back by means of evaluation and guidance, in order to help the student know and improve performances in due time;
- using student-focused educational strategies which generate active-participative learning environments, with creative valences, avoiding the exaggeration of the information dimension to the detriment of the training-educative one;
- didactic integration of resources provided by the new technologies (e-mail, personal website for subject topics, bibliography, electronic resources and communication

with students) and varied auxiliary materials (flipchart, over-head projector, video-projector, interactive blackboard, multimedia system, etc.).

On the other hand, there is a source which has become fundamental, as we have mentioned in the beginning of this paper, and which springs from the adapted taking-up of European convention provisions and from applying the good practices which proved to be efficient in other educational systems:

- rendering the guidance, tutorial and mentor services for students operational, by means of which we may achieve personal guidance of students, as well as guidance regarding specific problems related to professional training and career evolution;
- developing educational resources (textbooks, treaties, bibliographical references, chrestomathies, anthologies, etc.) for each study programme in libraries, resource centres, etc. in free classical or/and electronic format;
- differentiated stimulating programmes for students with high learning performances by getting them involved in research activities, scientific sessions and scientific clubs and by rewarding them with awards and scholarships;
- programmes for retrieving those with learning difficulties by granting them longer guidance sessions, by integrating them in performance study groups, by facilitating the resuming of some topic modules, of some assignments or of taking some partial examinations;
- encouraging students to participate, individually or as part of a team, in summer schools, scientific projects, contests and competitions concerning thematic domains and areas;
- organizing some special tutorial programmes for newly hired professors and for professors outside the university, with a view to allowing them to acquire competences and attitude qualities specific to the academic didactic and research profession;
- creating a database which would reflect the insertion on study programme graduates in the job market, as well as their entering superior forms of specialization;
- including the assisting – supporting – orienting – guiding activities for students in a systematic programme with monitoring opportunities;
- systematical implementing and monitoring of quality management in education and research.

As far as *the research activity in universities* is concerned, it may, as a priority, be supported by identifying and promoting some institutional policies and success strategies in order to enhance scientific results, visibility and impact at national and international level. *Innovation, change and competition* will dominate the 21<sup>st</sup> century. The main vector of change will be represented by the increase in competition in education and research, as universities are ever more entering an “educational market” whose survival principles are flexibility, openness to innovation, rapidity in assimilating new orientations and exploitation of new horizons. The spirit of the epoch to come will be that of dynamism, of action, of experimenting, of speed of reaction and of adapting to change and to designing new ways of functioning. Consequently, the research activity requires support in identifying some productive areas and domains specialized in scientific investigation, displaying major themes, relevant to the fields of interest of universities, according to the research mission and directions assumed at institutional level, as well as to professors’ concerns. Research programmes will be crayoned by the strategic plan which will clearly state objectives, activities and resources.

The issue of establishing research teams at the level of scientific domains is related to innovation and development, and it must become a strategic direction with approaching some interdisciplinary themes and increasing incomes by gaining some projects/grants with external financing, collaborating with competitive external partners in order to initiate some scientific

research programmes and to get a greater number of students with high performances involved in scientific research activity.

The case study and the interviews conducted directed attention to other components considered less important – *the climate, communication and psychological state of the academic community members*. In spite of not being mentioned in European documents or in those regarding educational policy, we must remark that scientific research has proved them to be determinant for the success of a reform of the education system or of an organization [6]. Within the didactic and research component, the attention paid to the climate and to the psychological state of academic community members – students and professors – has a decisive impact on result quality, especially in the present context of reforming the entire system. Neglecting interpersonal, inter-group and psycho-social, emotional processes may lead to a defensive behaviour in students and/or professors so as to protect themselves against the changes and innovations that might expose their potential vulnerabilities. That is why we support promoting a climate of trust and mutual respect favourable to education, development, research, and which should be focused on teamwork and cooperation among members of the academic community. Here are some examples of ways in which such a desirable climate may be created so that it might generate a state of intellectual well-being, of accepting the other members and of teamwork so as to attain the aim assumed:

- getting the students and professors involved in formal and informal didactic and research activities;
- informing the academic community on the progress achieved by each team;
- workshops where students and professors may practice the capability of administrating and solving interpersonal or inter-group conflicts by negotiating;
- opportunities to spend time together during events dedicated to acknowledging performance and celebrating values;
- using, in combination, volunteer work and delegating in making up various teams;
- investing in the material and logistic basis for students, didactic and administrative personnel;
- establishing trust and openness among personnel members, students and the community;
- acknowledging students' and professors' performances and highlighting their success;
- balanced delegating and role clarifying for team members, as well as clearly stating tasks and responsibilities;
- consultative and decisional involvement of academic community members.

### **Conclusions or 10 actions considering some new educational policies**

The study of academic activity in higher education leads us to an efficient model of strategic approach completed by interdisciplinary approach and participative management in decision making and in administrating educational and research activities, valuing competence, creativity, efficiency and performance. Performances in the didactic and research activity depend on the other functional components of university institutions. We eventually launch a proposition under the form of a 10 action guideline plan, which may include a series of answers to the following questions: “What actions must be taken into consideration in the future educational policies?”, “What do we know or feel as not functioning well in higher education?”, “On what should universities focus on short, mid- and long term?”:

1. diagnosis and specialized analysis of the current state of the university from the perspective of the educational offer, the didactic process, research, students and graduates, the material-financial basis, collaborations and relationships with the local-national-regional-international community.
2. the coherent, transparent, balanced, and equitable approach to distributing resources among university structures, faculties and departments

- investments in the didactic and research material basis;
  - the access of the entire academic community to the facilities provided;
  - financial and logistic support of research-development projects , especially of the interdisciplinary ones, of participating in prestigious scientific conventions resulting in papers published in ISI journals;
  - promoting and acknowledging didactic and research performances by applying a transparent and objective system of granting professional stimulants;
  - encouraging and supporting the efforts of young professors for professional development and meeting the criteria for obtaining the title of reader and professor.
3. identifying priority domains for the university and applying some educational policies meant to develop areas of didactic and research interest.
  4. clearly formulating purposes and team elaboration of an optimistic but realistic vision on university evolution and setting the desired goal by using the European-national-regional-local education system as a reference point.
  5. elaborating the strategic plan for institutional development and the operational plans by consulting the academic community and the experts in the educational field.
  6. activating the institutional network and laying responsibility on structures in exerting their attributions and getting members of the academic community involved in the university management at decisional and executive levels.
  7. ensuring the legislative-normative framework according to the present regulations by revising and updating the methodologies and procedures applied in the functioning of the university by specialty commissions.
  8. developing, as a priority, the strategies of attracting funds and intensifying collaboration with the socio-economic environment by creating new areas of social action stipulated nu the Law of National Education no. 1/2011 by means of activities such as:
    - a. post-university programmes for sustainable professional training and development accredited by the CNFPA / The National Council for Professional Training of Adults;
    - b. community cooperation and education;
    - c. evaluating and certifying professional competences acquired in formal and informal environments;
    - d. specialty consultancy and expertise in scientific domains in “Dunarea de Jos” University of Galati;
    - e. educational and professional guidance.

These activities constitute strategic guidelines promoted in the EU programmatic documents and may include universities along the European line of human resource investments, also being eligible for accessing structural funds.
  9. adapting study programmes and professional competences provided by them to legislative regulations in the field of qualifications included in EQF, CNCSIS and RNCIS.
  10. prioritizing the expansion of the target group for the university and the identification of new candidates for admission by the strategic approach and the support of the campaign for promoting the educational offer at university level.

Assuming and observing the legislative principles in the functioning of the educational system, but especially applying the various strategic directions crayoned are meant to ensure the premises of some benefic changes and finding solutions with a view to transforming Romanian universities into academic institutions of high performance. University management will have to assume, as dominant, the combination of the science and art of training human resources and of training the work force according to professional standards in specific domains. As far as success in education and research is concerned, reaching it will implicitly mean that the academic activity in

universities will create the necessary conditions for training experts of superior doctoral and post-doctoral qualification, for promoting science and culture in the spirit of democratic values, of moral and spiritual requirements, of academic freedom, of openness towards the international scientific and cultural community.

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#### Notes

- [1] J. Dewey, „Copilul și curriculumul” 1902 / “The Child and the Curriculum” 1902, in ”3 scrieri despre educatie” / “3 Writings on Education”, The Didactic and Pedagogical Publishing House, Bucharest, 1977.
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