DIMENSIONS OF CURRENT EDUCATIONAL SYSTEMS: E-LEARNING WITHIN CONTINUOUS TEACHER TRAINING

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Abstract: The current educational systems which are adapted to the specific needs of the school population have been devised according to the ideas and principles of contemporary pedagogy. These are characterized by the following dimensions: reconsideration of the role of the student who becomes the subject of education; using information technology in education (the computer, the Internet, virtual classes) in planning teaching, guiding learning, monitoring the didactic act; learning through problem-solving, stimulating critical thinking; preoccupation to form skills, greater interest shown to interactive experiences, reconstructing the school environment in order to favour interaction, cooperation, experience interchanges, opinions, active listening. Among the objectives set by the Lisbon European Council for a "knowledge based society" there also lies promoting new technologies for teaching and learning: modern computing and communication methods, new teaching materials. Training and continuous professional development of teachers is done in order to develop professional skills, by improving teaching and learning methods, but also to adapt to the demands of new generations of students. Essentially, this involves activities conducted within the educational content of education to adjust / self-regulate the educational process, along with training and developing skills required by the new technologies. Developing skills in information and communication techniques applied in teaching and learning, in the institutional management and data management, skills adapted to the specific requirements of the teaching profession, the types and levels of competences with the European framework operating qualifications Framework (EQF) and the National Framework of qualifications in Higher Education is one of the goals of current programs of continuous training of teachers. Computer operating skills and access to communication networks, computer use in the preparation of design, portfolio, other materials, the use of electronic information platforms for documentation, interactive solving tasks, evaluation are aimed at developing professional skills of teachers.

Keywords: educational policies, professional competences, continuous professional training, new technologies in education

I. NEW TECHNOLOGIES AND TRAINING OF TEACHERS IN THE CONTEXT OF CURRENT EDUCATIONAL POLICIES

Education as an essential dimension of human existence ensures the optimum functioning and the improvement of social, economic and political structures. It is also a priority all over the world and it occupies a well defined position in the national, European and global development strategies.

The current educational systems, adapted to the educational requirements specific to a diverse school population, have been built on the basis of the ideas and principles of contemporary pedagogy, an interactive pedagogy, which emphasises the importance of forming competences and which is characterised by the following dimensions: the reconsideration of role of the student, who becomes subject of education; the use of informatics technologies in education (computer, Internet, virtual classrooms), in designing teaching, directing learning and monitoring the didactic process; the shift from hierarchically-organised educational systems to educational systems organised on the network

model; learning through problem-solving, stimulation of critical thinking; preoccupation for the formation of competences; the tendency of prospecting, anticipating and reconstructing the learning structures; the preponderance of interactive experiences, which generate profound learning: cooperative teaching-learning, lessons based on life-experience, opinion confrontation, action models; the reconstruction of the school environment in order to favour interactions, cooperation, experience and opinion exchange, active listening.

The end of the 20th century and the beginning of the 21st mark numerous changes in the education and formation systems and the educational policies in Europe, generated by the directives and recommendations of the European Councils, the European Committee or the European Parliament, as well as by the education and formation programmes initiated by them.

One of the strategic objectives and priorities of education reform programs in Europe in the last decade has focused on developing and integrating information technology skills during the educational processes. Developing scientific and technological skills represents one of the 8 key skills proposed by the European Parliament and the EU Council in 2006 within the Recommendation regarding the key lifelong competences.

In recent years, the European Councils in Lisbon (2000), Stockholm (2001) and Barcelona (2002), emphasized the need for actions aimed at integrating information and communication technologies (ICT) in educational systems and processes. The Lisbon European Council (March 2000) established as a priority for 2010, the European Union to become "the most competitive and dynamic knowledge-based economy in the world capable of sustainable growth with more and better jobs and greater social cohesion ", putting lifelong learning at the center of each EU member state and supporting adaptation of education and training to the knowledge society.

In order to achieve the Lisbon goals, the European Council in March 2001 in Stockholm, adopted "The Report on the future objectives of education and training", which identifies new areas for joint action at European level, based on three strategic objectives of the report, aimed at education and training systems in Europe. We may mention the following objectives: improving quality and efficiency of education and training in the European Union, by ensuring universal access to ICT. Following them, in March 2002 Barcelona European Council ratified the detailed work plan for implementing the objectives of the report, stressing the importance of effective use of ICT for the European knowledge society.

Following the European Council summit held in Lisbon, which has drawn up the policy and action in the European Union, reaffirmed the need to practice lifelong learning, the European Commission launched an e-learning initiative program and planed e-learning action (2001-2004). The conclusions of the Lisbon Summit highlighted the importance of e-learning in the knowledge society, emphasizing the need for equipment and educational software to use ICT in teaching and training practices.

The Memorandum on lifelong learning, a document prepared by the European Commission in October 2000 implemented a new vision of lifelong learning for all, at both individual and institutional levels. The memorandum sets out the implementation of lifelong learning situations, advocates a new approach to education and training, as a result of socio-economic changes in Europe and has six key messages, which are the types of specific actions regarding the implementation of lifelong learning. First post "new basic skills for all", aims to guarantee universal and continuing access to learning, skill training and skills required for active participation in the knowledge society and economy. These are areas of knowledge and expertise of interdisciplinary nature: information technology skills, foreign languages, technological culture, entrepreneurship and social skills.

In the current socio-cultural pressures and changes in the education and training and education policies, one would require remodeling, resizing the teacher, especially under the influence of new information and communication technologies. Subsystems of initial and continuing teacher quality are a result of the educational system and process, but also the quality of teacher training is an important determinant of efficiency. In the teacher training there is a change of focus, a balance between initial training and continuing education in order to achieve a permanent, natural continuity between the two segments. Training is not accidental but systematic, continuous, ensuring progress of education. Training of teachers includes two basic directions: update, deepen, and further vocational training and reconsideration, completing the initial training to the new requirements, conditions and applications [7, p.28]. Thus being designed it leads to the professionalization of the teaching career.

Professor Romita Iucu [7, pp. 25-26], summarizes the current features of the system of training teachers, making a comparison between the traditional and the contemporary systems (Table 1). We note the convergence features presented with the idea of lifelong learning, continuity and career development.

Table 1: Continuous teachers' training

	Traditional	Modern
Age/Seniority	The period is determined and imposed	Continuous adult education process
Motivation	Individual motivation	Continuous education is a collective project
Level of training	Pre-university level/university level	Post-university level – opening towards post-university programs, MA programs
Institutional	Pre-university institutions and universities	Accredited continuous training programs supplier
Professional competences profile	Theoretical approach, professional acquired skills	Pragmatic approach, professional skills
Curriculum	Compulsory, pre-established	Flexible, opening towards optional disciplines by using the transferred professional credits system
Organization	Frontal, team centered	Individual, in groups, interactive
Evaluation	Reproductive character	Alternative evaluation strategies – portfolio, skills evaluation
Certification	Sporadic, unilateral	Continuous, cumulative
Academic mobility/professional mobility	Reduced, the essential criterion: experience in the field	The transferred professional credits system ensures the dynamics and evolution in career.
Training accents	Behavioral – attitude like	Attitude like - reflexive
Specific approach	Training – teacher training	Education – teacher education

The problem of in-service teachers as a process which meets the individual needs and the social, professional, is a key element of ensuring quality of education, as discussed in the bodies and European level meetings. Among the conclusions reached from the European Council summit in Lisbon in March 2000, the following directions were followed:
- ✓ adapting training to the challenges of the knowledge society;
- ✓ creation of multifunctional network learning, the training centers connected to the Internet;
- ✓ creating a European framework for defining key competences for lifelong learning (ICT, foreign languages, social skills).

The question of reconsidering the role of the teacher competencies required by the need to adapt to changes in the educational system and the major trends of curriculum reforms in Europe, points to a teacher trainer, able to adapt to new challenges by using new information technologies and new pedagogical approaches.

At national level, reviewing the initial and continuing training of teachers, aimed at developing new skills, highlighting the autonomy and professional responsibility, updating the curriculum, ensuring a balance between the theoretical and the practical sides [12, p.31]. Regarding training of teachers, educational policies seek concrete measures to increase professional skills, one of the measures to complement training programs by introducing new ICT specific activities. The strategy for development of the initial training and continuous education university 2001-2004,

document aimed at revamping the initial and continuous training of school education, the professionalization of teaching career, among other objectives that seek connection training programs to the European requirements like the expansion competencies of teachers in ICT. The document provides the restructuring of training programs for the purposes of implementation of specific activities: computer assisted learning technologies.

II. OPTIMIZATION OF IN-SERVICE TEACHERS THROUGH E-LEARNING

According to the European e-learning portal, the European Commission defines e-learning as using multimedia technologies and the Internet to improve education quality by facilitating access to resources and services, collaboration and exchange of information. Starting from the etymological meaning of the term: learning through electronic means, e-learning is nowadays considered one of the most modern concepts in pedagogy [7, p.105], and it means the area of intersection of the new ICT educational activities, reporting ICT learning activity, overlapping and intersecting the other meaning of related terms: computer assisted instruction, online learning, learning through multimedia.

Summarizing the various meanings attributed to the concept of e-learning, many papers offer two meanings of the term [13, 15, 16]:
- broad sense: all educational situations where ICT facilities are used, all based learning activities of electronic devices;
- narrow sense: teaching and learning experience, organized by an institution by providing mediated materials for their assimilation by learners, Web-based learning.

Taking into account the multitude of opinions and definitions given to the term, we consider it is necessary to systemize them by stating that e-learning is a human activity which is computer-mediated while using electronic devices for transmitting information such as the Internet, internal network of digital communications, CD-ROM, etc.., with the aim of achieving targets for training and personal development.

In the context of increasing the impact that new technologies have on learning environments, a lot of discussions are about e-learning educational paradigm [10, p. 99] able to facilitate and promote information and cultural transfers, strengthening globalization.

Providing the premises for education and improving the quality of processes produce major changes to the organization and development of teaching-learning. Thus e-learning is seen as an alternative to supplement and complement traditional training methods, but not eliminate them.

To highlight the differences between e-learning and traditional education, we shall synthesize the following characteristics and features of e-learning [6, pp.5-6; 1, p.75]:
- obtaining information is done directly, the mediator is non-existent or acting as counsel;
- conversion of information into knowledge is based on the selection and evaluation of teachers (from many sources at their disposal) involving own judgment and responsibility;
- audience may include learners who cannot attend classes in the traditional way;
- facilitating flexible learning, respecting their learning pace and style;
- specific interactive technology provides immediate feedback, allowing formative and summative assessments by the trainers.

In the context of the contemporary society which is a permanent and dynamic knowledge society, e-learning is a modern and efficient alternative to traditional teacher training. In the field of continuous education one may notice the tendency of a virtualization of education, as teacher training does not represent an improvement of initial training, but a life-long learning.

Lee, Owens and Benson [9] identify four categories of standards regarding design, development and evaluation of e-learning training:
- interface standards, the relationship between training and teachable program, trainees;

- compatibility standards regarding the relationship between the training program, the operating system and the software applications;
- quality standards regarding the relationship between text, images and visual presentations;
- instructional design standards governing the relationship between program objectives, the contents of learning, the teaching methods and the characteristics of the trainees.

For an effective implementation of the training programs by e-learning, it is necessary to base them on adult learning theories (social cognitive theory, social theory), which places the adult in the center of the learning processes and the identification of a management system learning, through which trainees can plan and manage their own learning. From this perspective, Rosenberg [14, see M. Lupu, 2009, p. 115] present the following conditions of operation of an effective learning management system: common catalogue of online courses, online registration systems, tools of assessment of acquisitions, ability to initiate monitoring systems for e-learning sequences, learning assessment systems, the system's ability to deliver individualized reports, the ability to form cooperative learning communities.

Johnson & Aragon [8] identify a number of principles which e-learning training programs should be developed on in order to be efficient:
- flexibility of training pathways that should meet the specific individual characteristics of each trained person (individualization and customization of the training course);
- the program's capacity to motivate trainees;
- the program's capacity to stimulate social interaction, by creating virtual learning groups, with the possibility of permanently modifying them;
- stimulate critical thinking of trainees;
- creating a learning environment as close as possible to the natural trainees' conditions of work;
- the variety and the complementarity of the information sources.

Regarding the way one should structure training programs such as e-learning, Mason [11] describes three specific models:
- The Web-enhanced model: this involves combining face-to-face teaching with learning based on learning materials available online. Trainees use ways of interaction and cooperation such as virtual forums, email. E-learning represents in this case about 20% of all learning experiences.
- The web-enabled model: it involves a combination of the digital resources and online activities (virtual forums, video-conferences) with material resources (books, CD-Roms) and tutoring activities.
- The web-dependent model: teaching and learning are almost integrally carried out through e-learning. In this case we would like to emphasize the moderator competences of the coordinator. The latter should be able to establish cooperation between the participants and to offer feed-back and proper evaluation as conditions for efficient learning.

III. CONCLUSIONS

Taking into account the principles of lifelong learning, which emphasizes the role of autonomy in learning, and the characteristics of the contemporary society which claims the need to analyze the training needs of teachers, we believe that combining traditional courses and training programs with the e-learning system would be a viable, effective method.

Comparing e-learning training programs with traditional programs one may notice a number of advantages and facilities in the case of digital technologies: the latter facilitate the formation of complementary skills to those obtained by students in the traditional training sequences and they provide unlimited access to information for learners. Moreover, the learning program is flexible and

the students enjoy autonomy regarding the activities, the way they manage their time, the way they choose places to access it, to ensure the delivery speed of learning. Self-paced learning is encouraged, students draft their own learning agenda and it provides opportunities for practical revisions.

Reviewing one's own performances, self-awareness and free will are also favored. Minimum financial and time resources are required (by reducing travelling time). There also appears the possibility of requiring/receiving individualized counseling services so that trainees may overcome difficulties. Last but not least an environment that assures discussions and debates is created so that this might favor cooperation, cross-cultural interaction and non-discrimination.

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