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**MAPPING THE TERRITORY. E-LEARNING OPTIONS FOR TEACHERS'
PROFESSIONAL DEVELOPMENT**

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Abstract: *The teachers' literacy in the field of e-learning represents a current challenge within the framework of knowledge based society. The use of new technologies in education tackles the very core of teaching and learning, the issue of knowledge and skills transfer from teachers to learners. In this context it is truly important to design and implement specific strategies for the in-service teacher training which should encompass their competitiveness in the field of e-learning. In Romania, this area of teacher training is expanding, while the tools that support this development are multiplying. The paper focuses on identifying the delivery methods proposed by different training programs as well as the tools used, while analyzing their correlation with characteristics of the target group.*

Keywords: *blended learning, higher education teachers, learning platform, training needs analysis*

I. TEACHER TRAINING AND E-LEARNING

The transition to the knowledge-based society has become one of the most celebrated goals of the socio-educational systems acknowledging the fact that **knowledge** will play the crucial role as a main resource of sustainable development. At its very core this goal emphasizes the need for education to focus on the individual, on the human being as the main carrier, generator and user of knowledge. Furthermore this paradigm underlines that the development of the knowledge-based society depends on many factors, among which teachers stand out as one of the most important as they are invested by society as the main provider of general literacy and culture, as well as of knowledge and skills. However it should be emphasized the fact that teachers are not only transmitters of knowledge but they should assume a more active role in changing schools and their own profession. They are appointed new roles while their professional identity and status undergo a revision, they must re-examine their profession and redefine their role in the learning process assuming responsibility for their own professional progress. The students as their referees are also undergoing a significant transformation which is covered best by the phrase "digital learners". This raises specific issues related to their new abilities, and their new relationship to knowledge, to the use of digital technologies, tools and resources, as tools for pedagogical enrichment, and not in the least to the management of time and space in the learning process.

Consequently in light of our present paper and in line with the specialised literature (UNESCO, 2010), teachers should acquire at least three important qualities - they should become:

- *e-teachers* - they should be able to use modern digital technologies in their own practice in the classroom;
- *blended learning teachers* - they are facing the challenge of combining digital activities and non-digital ones, face-to-face and online activities in order to be more respondent to

the learning needs as well as the thinking and acting patterns of the digital generation; they have to become more flexible when dealing with time and space in relation to their own professional development, and in relation to the characteristics of their students;

- *LLL teachers* – they should engage in a lifelong process of personal and professional development while showing students how to learn and empowering them with the competencies that support their lifelong learning.

We believe that these attributes can only be developed if they are subject to specific programs of training that might further generate new ways of thinking and structuring their professional practice while acknowledging the added value that these characteristics will bring forward.

Recent studies and reports prove that during the last decade there has been an increasing interest in implementing e-learning in teacher training programs. It becomes obvious that with the developing technology, the educational field started to change and acquire new perspectives. In the interest of our paper a definition on e-learning as a new approach should be given. E-learning can be broadly defined as the use of Internet technologies to create solutions that support and facilitate the teaching and learning processes. Osguthorpe & Graham (2003) pointed out that combining e-learning strategies with face-to-face strategies in a blended learning solution increases the educational effectiveness when compared to either type of strategy used individually.

Xu, Shao, and Sun (2011) advocate that e-learning should be a part of any national strategy for teacher development, and support their view by making the connection between the benefits of e-learning and the necessity faced by most countries to attract, develop and retain capable teachers in their education systems. Not only is e-learning available anytime, anywhere, providing more flexibility in access and overcoming practical and time constraints, but it also enables the creation of a networked community of professionals. Moreover, e-learning provides the opportunity to depart from the traditional teaching and learning paradigm by offering students richer learning environments where face to face instruction and technology-mediated learning are combined.

Content and communication are two major factors that can help in making a distinction between various types of activities e-learning can include (Figure 1):

- Sharing of resources and expertise
- Provide courses and learning applications
- Combine with traditional instruction – blended learning
- Support informal learning and communities of practice

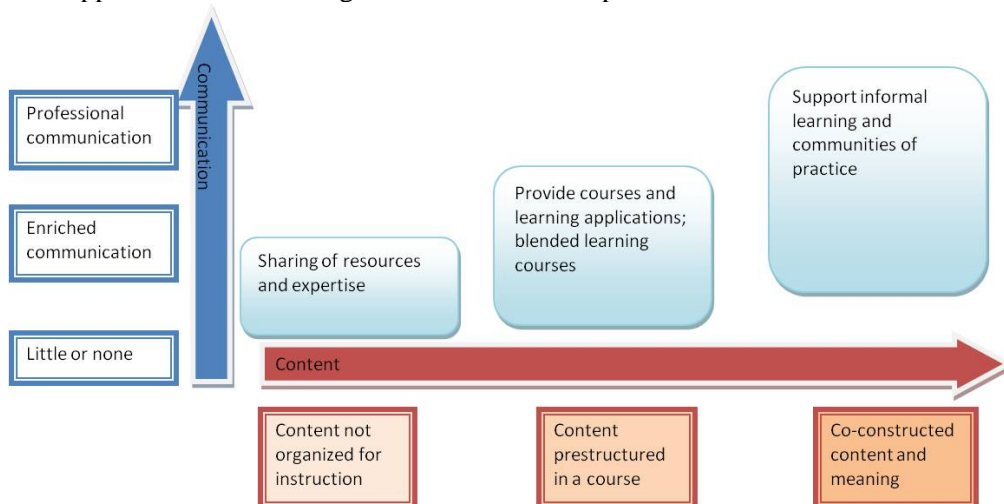


Figure 1. Types of e-learning (based on Xu, Shao, and Sun, 2011)

II. RESEARCH METHODOLOGY

The importance of training teachers in and by e-learning is recognised in all European countries, and increasingly resources and efforts are being allocated to this area. Experiences from

different countries show that teachers are much more committed to the use of new technologies if the methods employed are flexible and adaptable to their needs and take into account their professional experiences.

In Romania, this area of teacher training is expanding, while the tools that support this development are multiplying. In fact, many projects are financed through the European Social Fund (especially Sectoral Operational Program Human Resources Development) to provide teachers with opportunities for continuing professional development, and many of these projects are offering blended learning programs.

In the last 5 years there have been implemented many projects that aim at teacher training and rely on the use of e-learning. Most of them were initiated either by school inspectorates, higher education institutions or the ministry of education. Due to the required technological support, each of these projects involved technical partners, mainly well-known companies with a substantial expertise in the development of educational e-learning programs.

Our research focused on identifying the delivery methods proposed by these programs (face to face, self-paced e-learning through multimedia content, synchronous and asynchronous collaborative activities, etc.), as well as the tools used (forums, webinars, chat, repositories of resources), and analyze their correlation with characteristics of the target group (level: pre-school primary, secondary, higher education, domain, etc).

The objectives/aims of the research undertaken are as follows:

- To identify the most frequently used e-learning options proposed through projects for the in-service teacher training
- To analyse the correlations between the characteristics of the target group and the features of the delivery methods and the tools used
- To draw out some recommendations based on the findings of this research for future developments

The methodology consisted in the development and implementation of *two specific tools of investigation* in order to meet the aims of the research:

1. An evaluation form designed for an exploratory analysis of the websites/tools proposed through projects for the in-service teacher training;
2. An expert analysis form designed for the developers in the field which allows a more qualitative approach of the websites/tools proposed through projects for the in-service teacher training.

The evaluation form designated for the exploratory analysis was used to analyse 24 projects dedicated to e-learning programs for teacher training. All these projects were developed within the financing fund dedicated to *The Development of the human resources in education and professional training*. The programs were selected based on a set of criteria:

- expertise of the partnership in the field (Ministry, institutions with tradition in the field of teacher training, nationally and internationally recognised companies with expertise in the field of design and implementation of e-learning tools),
- their objectives/aims/goals including innovation and use of technology,
- their potential impact on the target group, including visibility,
- their projected outcomes that might provide useful learning points to stakeholders, including valuable learning points and transferability (based on their argumentation and presentation of these outcomes).

The main criteria of analysis included in the evaluation form for these projects were:

- Features and level of the target group (pre-university and university level, different categories of teachers and different roles assumed by teachers);
- Aims of the project;
- Delivery methods used in the learning programs offered.

It should be mentioned that most of these projects are still in the implementation phase and results are provisional.

The second tool was used as a basis for conducting semi-structured interviews with 4 experts involved in developing blended learning environments. The purpose of the interviews was to

determine what are the particularities of developing such programs for the teachers and to infer possible implications for the sustainability of the programs beyond their period of implementation.

III. FINDINGS

According to A. Hargreaves (2003), “we are living in a defining moment of education history, when the world in which teachers do their work is changing profoundly, and the demographic composition of teachers is turning dramatically”, and “teaching is now becoming a young persons profession again”. He stresses that the knowledge economy, knowledge society is driven by creativity and ingenuity. We could derive two valuable premises for our interest:

- The changing in teachers own characteristics and development needs evolved,
- Teaching is now becoming a more personalised activity – the student centred paradigm being at the core of these transformations.

For both these premises e-learning can provide some viable solutions, while the findings of our research might support this statement.

From a total number of 25 projects, we draw the following quantitative and qualitative data:

- ***Related to the level of education***
 - 5 projects were dedicated to different categories of teachers belonging to the higher education level.
 - 19 were dedicated to different categories of teachers from the pre-university level. Furthermore, out of these 19:
 - 4 projects are dedicated to pre-university teachers with no regard to other more precise levels of school – primary education and secondary education (gymnasium and high-school);
 - 5 projects are dedicated specifically to high-school teachers;
 - 10 are dedicated to secondary teachers in general (gymnasium and high-school)
 - 1 project is dedicated to all categories of teachers from pre-school education to higher education level;
- ***Related to the competencies developed:***
 - Most of the projects are dedicated to the development of the methodological competences in teachers’ field of specialty;
 - Another orientation regards the development of IT competences and the use of modern technologies in the classroom;
 - Another projects are aiming at the development of competencies in the field of quality assurance and management;
 - Some projects are dedicated to the development of communities of professionals (even including the development of the relationship with the syndicate union.
There was difficult to identify and classify projects in one specific category because most of the times these goals were intertwined.
- ***Related to particular groups of persons:***
 - All projects involved teachers from different levels of the educational system as presented in a previous section.
 - Some of the projects also included students in the target group (especially those related to the development of ICT competences)
 - Some projects included other categories of persons especially from the administrative institutions involved in the education (especially the projects related to the quality assurance and the decentralisation of the educational system).
- There were more than 30776 persons included in the target group, *however a person can be part of the target group for more than one projects;*

- 700 higher education teachers;
- 700 higher education students;
- 26150 teachers from pre-university education;
- 3226 teachers who also have a managerial function.
- Other categories according to the information presented above.
- There were developed technological support tools for all the projects analysed.

Some of the findings that need more emphasis are:

- The projects address both pre-university and university level, which is quite significant and encouraging due to the fact that especially the higher education sector has seen few initiatives to develop and offer training (except for the specialty field, namely masters programs, doctoral and post-doctoral programs);
- In close relation to the finding presented above it is important to emphasise the fact that more interest is awarded for the development of the psycho-pedagogical competences of the higher education teachers;
- Some of the projects were developed in cascade or even in parallel, namely the same goals and activities and learning tools were multiplied while being dedicated to teachers belonging to different regions in Romania. This happened especially to the projects focused on the development of the didactic competences of secondary teachers. This fact can be beneficial in the sense that these projects offered a similar training for more teaching staff that might support future innovations at the level of the educational system based on these similar competences.
- We believe that the projects selected might prove to be examples of good practice for the use of e-learning in teacher training. We believe that these programs might be used as inspiration and to promote peer learning and knowledge exchange.

The second stage of the research added more information about the factors that are important to the success of these initiatives:

- Teachers, like all adults, are motivated to learn especially when they are confronted with real examples and cases from their practice. It is important that practical exercises included in the learning program are based on the everyday experience of teachers. Theoretical concepts presented should be translated in the context relevant for the learners. This has placed a heavy burden on the subject matter experts employed by the projects and is especially sensitive in situations where knowledge and skills from other areas (such as management) should be transferred to education.
- In close connection to the first point, during most projects that aim to create a community amongst the learners, many examples and situations from the practice are discussed and presented by the learners themselves. Project beneficiaries should envisage making the effort to organize this knowledge, facilitate its dissemination, and use it in further deployments of the program.
- Many of the projects have a technical partner who is in charge of all the administration of the tools and environments used in the project. In many cases this support may continue after the project, to ensure sustainability of the results. However, in order to fully realize the potential of both technology and pedagogy, all the partners should be prepared to be equally involved.

IV. CONCLUSIONS

At the end of our empirical research we feel that 3 conclusions may be of interest:

- The retrieval of information on the opportunities for professional training by means of e-learning technologies was quite difficult. There are no centralized databases or other means for teachers to find information in relation to their learning needs. They can only find about learning opportunities if they are informed by the school or if they are searching for the websites of the projects they hear about. We believe that the information

runs from top-down and is restricted to the target group the promoters of a specific project have access to.

- Although these are projects that rely on technological tools, there is still a lack in the transparency of the information being distributed. There were projects (which ended) on which information could be retrieved only from press releases or from the websites of the institutions involved, while this information was quite scarce. Even on the website of the projects that are still running the information might not offer a very good knowledge on what is happening in that specific project. Namely usually one can find on these websites information about the aims of the projects, the partnership, the main activities, the target group and some contact details. There is little, if any, information about the type of activities that take place within the training program, the prerequisites (if the case) or the workload required which are important variables for teachers who commit to such a program.
- In light of our own experience with the retrieval of information for this research and based on our own reflections on how sustainability can be ensured for these e-learning tools, we phrase a set of open questions: what happens to all these e-learning tools after a project is ended?; who takes charge for the outputs of the project and how is valued the technological support, the contents, the best practices, the lessons “learned”?

In the end of our paper we would like to underline that our research only “scratched” an issue that should make the subject of a more extended and complex research. Further studies could focus on impact assessment of the projects centred on e-learning – the impact on the target groups directly involved in the activities, but also at the system level on students, as indirect beneficiaries of the professional competences of teachers.

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