Distance Education in Teacher Training

DANIMIR MANDIC
Informatics and didactic
University of Belgrade
Kraljice Natalije 43
SERBIA
NENAD LALIC
University of East Sarajevo
BOSNIA AND HERZEGOVINA
DAJANA LALIC
Belgrade
SERBIA

danimir.mandic@uf.bg.ac.rs http://www.uf.bg.ac.rs

Abstract:

acience and technique have contributed to development of educational Modern inventions in technology. Traditional teaching is most often criticized for insufficient activity of students, inadequate teaching intuition and dynamism, the impossibility of individualisation of teaching, lack of continuous feedback on the achievements of students and others. Intensive development of telecommunications technology and computer systems, permanent connection to the Internet and WEB based learning systems enabled better use of computer technology in teaching. Computer based classes provide flexible organization activities, lectures and study materials and a complex evaluation of Teaching is often formalized, verbalized and not sufficiently visual, reducing knowledge durability as well as possibility of connecting theory with real life. Permanent teacher's education in the area of new technologies becomes necessary. We made a WEB portal for on-line permanent education and it will be described in this paper.

Key-Words: - Evaluation, Technology, On-line learning, Teaching, Distance education

1 Introduction

Teaching organization and organisational forms of carrying out teaching are important assumption for defining teachers and pupils position in teaching, for choice of teaching contents, aids, forms methods of work, as well as technique and technology of teaching. Thus, for exaple, in frontal teaching pupils are listeners, and teacher is lecturer and examiner, while in team teaching teacher is more organizator of teaching work, adviser and intellectual guided of his pupils, and they are active participant in group and individual work, responsible for teaching and

learning success. In frontal teaching introductory lectures are given with possible demonstrations of visual and acoustic additions, while in team teaching programmed and semiprogrammed materials are used, teaching packages, television and computer presentation. Organization and carrying out teaching according to "open plan school" system, school without grades, indivudually planned teaching, considerably has effect on the fact that teacher teaches less, and pupil learns more making his own effort. In the field of teaching organization is planning and programming of school work as a whole, individual teachers and pupils. School curriculum is official domument containing

the whole process of school pedagogical activity, time frames are foreseen in which certain activities will be realized, material and other conditions are provided for successful realization of programme contents, actors of programme activities are anticipated, fair distribution of work obligations is made among members of school collective, it is precisely known who does certain work and for which works and tasks is responsible. In good work organization collective looks like a good unity, material and other conditions are always provided for those who realize programmes with the aim of successful work, realization of programme tasks is carried out evenly, social climate and discipline are high, and work results are in accordance with predictions. In good organization managing is easier and directing, correcting and supporiting and helping when it is necessary and when it is known that it will have positive effects. That is why in organization there is no idle speed, avoiding obligations and superficial work. Work organization is basic condition of control and management of teaching and learning process, while control and quarantees management are of successful pedagogical activity. [2]

Forms of teaching work, teaching methods and teaching aids should make possibilities for efficient teaching which will contribute to thinking activity of pupils, their better quality learning and more complete development. For active participation in teaching, for their better quality learning and full development it is necessary to dynamize forms of teaching: by combining frontal and group form of work, work in small groups, in pairs and individually; by introduction of new work methods, in addition to traditional ones, such as: expository, cooperative, researches - discoviries, using pupils experiences and simulations; application of traditional aids (written materials, diapositives, films, slides, graphoscopic presentation) and universal teaching aids (sophisticated teaching machines, TV presentations, computers, multi-media systems); by application of didacticmethodically shaped materials (tests, control papers, programmed textbooks, semiprogrammed contents of some teaching subjects, teaching sheets). Now it is possible to use multi-media teaching aids, programmed teaching with special purpose (package system), teletext and video text. Special care is taken, to advance tecnique and

procedures of qualitative learning and enable pupils for independent acquiring of knowledge as well as distance learning. [4]



Fig. 5. Multimedia classroom

Teacher is bearer of programming and teaching organization, creator of strategy of teaching and learning realization process and technologist of practical teaching activity permorming; realisator of advisory work, the aim of which is encouraging pupils to know techniques of learning and independent gaining knowledge; he is therapist in his activities trying to eliminate various deviations in work and behaviour of young people. It is evident from this that teacher is less and less lecturer and examiner and more and more educator of young people.

The basic task of evaluation is to find out to what extent educational aims are realized. That is why process and result are evaluated, as well as knowledge, ahility, interests, complete development of personality, not only academic realization. Evaluation of pupil work results takes into consideration the most important facts, what makes more complete personality development and what gives guarantee for his further advancement. The aim of evaluation is not only statement of knowledge, but also discovery of problems and taking measures for their elimination. [5]

2. Didactical resources on WEB

In the last two years we created a Web portal for the planning, implementation and optimal organization of teaching and on-line permanent education. Portal, also, contains materials for directors and

professional associates in order to facilitate the planning and implementation of their activities. Portal is located at www.edu-soft.rs Educational value of didactic media could be reduced to the conditional proven fact: didactic media allow faster and better realization of the objectives and tasks of education, they are an important prerequisite for modernization and acceleration methods and forms of teaching, an important factor for the alignment of teaching with life, theory with the practice and teaching content customization features, prior knowledge, needs and interests of young people and adults, their important functions in engaging multiple senses, encouraging and maintaining the attention of students, develop curiosity and desire for learning, for active participation in the educational process and its development.[5] Didactic media can actively involve students in the process of preparing, teaching and evaluation of realization. Didactic media allow individual work of students, transfer of knowledge and its application in the work and the techniques of self-education; mastering important presumption that equitable engagement of cognitive, emotional and conative power of personality in teaching and learning, they are important factor in directing student's activities insight stimulate learning, problem solving and creative activities. Portal contains methodological guidelines. preparing drafts. worksheets, multimedia and many other useful materials for teachers, principals and professional associates. [4]



Fig. 1 Didactical resources on WEB

Didactic media were created as a result of many years of studying the essence of their pedagogical and practical efficiency, and some of them have applied for years in our schools and have proved their undeniable value. This gives us the basis for the claim that it is professionally produced, diligently selected and skillfully applied, affect the teaching organizational, contents, methodology and results. It gives raise to a higher level of quality, happy teachers and students, and it realized what was effectively planned goals and tasks of education in all types of elementary, middle, and senior high schools. [1]

Basic principles of which starts the process of implementation of didactic media and use sources of knowledge can be classified in several categories of which, it seems, most notably the following [2]:

- a. Applying a means of teaching or the use of sources of knowledge does not exclude the use of other means and sources.
- b. Some sources of knowledge or didactic media are more suitable than the others for student understanding of specific instructional materials or teaching subjects.
- c. Didactic media and sources of knowledge should be used as an integral part of teaching and learning. d. Diligently preparing didactic media (prepared by the teacher and students) is essential for their proper and effective use in teaching and learning.
- e. Students should be aware of the specific purpose of teaching resources and feel responsible to provide a specific time and use in the teaching process and learning process.
- f. Teacher correct use of teaching resources and students' active monitoring of content is present, h. Didactic media and sources of knowledge are used to improve the quality of communication between teachers and students.
- i. Didactic media may have a competitive advantage gained experience as they are able to provide information that will be corrected by experience, modify the time, convincingly given the dimension of space, show details of processes and phenomena. All that is important to understand these phenomena and acquiring quality knowledge.
- J. Materials prepared for teaching and learning resources are effective if you contribute to the improvement of learning to the extent that students understand the connections and relationships between objects and phenomena of the real world. k. Didactic teaching medium serves the purpose if it allows the realization of the objectives of teaching as well as any other source material.

m. Any didactic power of the media is strong as much as pedagogical knowledge of teachers who use it

In the above portal Edusoft we can choose materials for teachers:



Fig. 2 Teacher's materials

Portal contains materials for planning and teaching, evaluating student work, creative ideas and examples of teaching practice. In addition to methodological guidance portal contains a large number of sketches for preparing classes, instructions, multimedia presentations and working papers which are, so far, not published in the print media. These documents and movies can help teacher training process to improve pupils activity and their better quality learning and teaching.

3. Distance education characteristics

Some protagonists of distance education dared to say that it efficiently solves problems which were brought by "knowledge explosion", technological revolution and cybernetics. However, the truth is that distance education only partially solves and helps to overcome some problems of our school. There are areas of educational activity where distance education has shown certain advantages over some traditional forms of teaching and learning. It makes possible to precise empirically realize contents of education with most details, to adjust their realization to individual abilities, speed, ways of work and psychological characteristics of pupis to a maximum. Thanks to this, it is possible to respect didactic principles in teaching more consistently, more secure control of teacher and pupils work. In conditions of distance education detailed insight can be made in to work of

each pupil, his activity be followed more easily, intensity of activity and participation. It allows edvancement in accordance with their strenths and abilities; there are some general conditions for full motivation of pupils (specially by feedback information), acquiring of selfconfidence and responsibility is made possible; good conditions are made for selfeducation and for forming convinction with pupils that on their work depends what they will be in future. All this, no doubt, contributes to rationalization and intensification of teaching. [6] education can be combined with Distance traditional forms of work, so without great results of empirical researches it can be concluded that distance education frees teacher, to a certain degree, of routine teaching and some drills, tutorship, correcting of tests and some homeworks. He has more possibilities to advance professionally, to do creative work, research in teaching, solve educational problems, realize educational work programmes and to be more socially engaged in his community. In this way teacher has more time to plan work for a longer period, to do reseach in the work process, bring into it necessary innovations and enrich it with his creativity.

4 Conclusion

Researches about advancement of pupils in learning definitely show that it, among other things, depends on conditions for learning, quality of learning and on the person who learns. Results are in many cases consequence of conditions in which those materials and means had been implemented. Generally speaking, researches show, that a well done programme, logically composed articles sequences, give good results both in teaching that is dominanitly programmed and in situations when distance education complements other kinds of teaching. Researches have also shown, that pupils in the worst case, learn as much teaching material as they would learn with other kinds of teaching, provided they spare time in the process of distance education and enjoy more in learning programmed materials. Teachers as well become convinced that distance education when connected with other kinds of teaching is an attractive and useful innovation. They offer resissance only when all advantages of distance education are not clear to them and when

they are not trained to conduct it. On the other hand, for composing, verification and implementation of Web resources a lot of effort is necessary, as well as material investments and pedagogically qualified personnel, and it is difficult to provide all this. For that reason many programmes, which are criticized now, are not composed professionally enough, they are not tested in practice by authorized experts. Anyway, distance education is still relatively new, still not studied suficiently and, therefore many critical remarks should be taken conditionally, same as some results it had shown should be taken conditionally. It is sure that all weaknesses of distance education, we have been talking about so far, will not be shown in practice if it is organized professionally, logically brought into connection with other forms of teaching and learning and reduced to real possibility limits.

References:

- [1] Lung-Hsing Kuo, Hung-Jen Yang, Lydia Lin, Hsueh-Chih Lin: Identifying a General Structure of Teachers' On-line In-service Learning 10th WSEAS International Conference on Education and Educational Technology (EDU '11), Penang, Malaysia, 2011, pp. 87-92.
- [2] Mandic, D. *Information technology in education*, S. Sarajevo, 2001. pp. 17-19.
- [3] Mandic, D.: Didactical and computer supported innovations in education, Beograd, 2003. pp 36-38.
- [4] Mandic, D.: Knowledge Based Multimedia System for Teacher's Education, in the book 9th WSEAS Intenational Conference. on ARTIFICIAL INTELLIGENCE, KNOWLEDGE ENGINEERING AND DATA BASES (AIKED '10), University of Cambridge, Cambridge, United Kingdom, 2010, pp.221-226.
- [5] Mandic, D, Lalic, N., Bandjur, V..: Managing Innovations in Education, in the book 9th WSEAS Intenational Conference. on ARTIFICIAL INTELLIGENCE, KNOWLEDGE ENGINEERING AND DATA BASES (AIKED '10), University of Cambridge, Cambridge, United Kingdom, 2010, pp.231-237.
- [6] Rozniza Zaharudin, Norazah Nordin, Mohd Hanafi Mohd Yasin.: Online ICT-Courses Integrated for the Hearing-Impaired Individuals' Education: A PreliminaryStudy from the Teachers' Perception 10th WSEAS International Conference on Education and Educational Technology (EDU '11), Penang, Malaysia, 2011, pp 180-187.