Managing innovations in education

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Abstract:
Managing changes in education requires particular educated leaders. Managing innovations is very complex, because the teacher’s resistance occurs due to insufficient capability and inadequate equipment in schools. Overcoming this problem involves active participation in seminars for teacher training. Development of information technology and constantly innovating educational technology causes changes in the methods and forms of teaching and organization that would be optimal in the era of mass application of Internet and electronic sources of knowledge. Education, as a rule, slowly opens the new technologies in relation to production, transport, services, etc. However, young people at home and out of school live in a technologically rich environment expected changes in education in accordance with the imperatives of education for 21 century. In that sense, but is slowly being introduced in education, multimedia systems, distance learning, virtual schools and other technologies that increase the activity of students, qualitative evaluation of knowledge and progress of students according to individual abilities and prior knowledge.

Key-Words: Management, Innovation, Informational technology, WEB resources, Education

1. Introduction
The current organization of teaching is not created as a comprehensive cognitive system. As a rule, feedback is lacking. After the classes students do not know how they successfully overcame the curricula and teacher has not full “knowledge picture” of their students. Feedback should follow the course every step of the teaching process in which current practice is not the case. Teaching is more based on the entropic than systematic approach. One of the reasons for this situation is poor didactic-technical environment in which teaching takes place. The classrooms are equipped for the organization based teaching system. [1]. The process of modernization of existing technologies is taking place much faster in production areas, and is rightly expected that schools and faculties follow the innovative processes and to educate young professionals in accordance with the needs of society and economy. The world is made important steps towards equipping schools with modern didactic media, but the school expects to adequately equip them to apply new methods and forms of work with pupils and
students. Only in the last ten years with the mass use of computers in schools has created the prerequisites for quality educational technology innovation. Multimedia applications designed for personal computers offer the ability to create electronic books with text, pictures, sound and animation films so that students can independently progress in mastering instructional content, to return to the contents that they are not sufficiently clear, and to obtain additional feedback according with their abilities and interests. Interactivity and the quality of the material presented with the use of multimedia and hyper text gives much richer content compared with the instruction that occurs in traditional classrooms. Development of telecommunications technology and the massive use of Internet enabled interactive distance learning based on the systematic approach to using electronic media sources of information.

The development of personal computers in last ten years, experienced a significant rise, so that the processor speed increased up to hundred times the capacity of main memory and peripheral configuration of the standard was increased at least ten times, and are perfected and peripheral devices. Improvement of operating systems to concentrate the work of the users of the system, so that a large number of institutions, especially the faculties and schools, instead of large computer systems, their computer networks based on multimedia personal computers. Permanent Internet connection provides the traditional manner using telecommunications media, but in the last two years of intensive work on the use of cellular communication link, which will provide a connection to the sources of information in any location using a portable computer. Using voice recognition software and manuscripts is expected to become a secondary device keypad and a microphone and an electronic device to become primary. Using new technology education becomes accessible to a wider circle of people interested in permanent improvement in their activities. Information Technology in Education provides opportunities for the use of new teaching methods and a new organization which would continue the shortcomings of traditional teaching awareness could limit the tolerance. Classrooms and the classical forms of work are not sticking, but adds a new technology that integrates the positive elements of traditional technologies by changing the position of students and teachers in order to increase students' active participation and constant monitoring of his progress.

In the past few years produced a number of universal use of computers, which are compared with previously produced, technically perfect, high performance, flexible, cheap and suitable for use in different conditions and different purposes. Microcomputer with the latest generation of fast processors with large capacity of working memory and peripheral have significant advantages in the learning process than in previous generations. In developed countries extensively use video projectors that connect to computers and enable high-quality content on the projection display, canvas, active electronic boards, camera to present three-dimensional models and the like. Electronic encyclopaedias and the Internet are important sources of information used by pupils and teachers in acquiring new knowledge. There is no doubt that new technology enables the teacher to raise the quality of teaching and to provide duplex communication in teaching. Multimedia presentation contributes easier maintenance of discipline in the teaching and creation of pedagogical situations that will come to the fore the responsibility of students for the success of teaching and learning. [3]

Students intensively follow multimedia presentation, better remembered teaching facilities (especially those who tend to learn by listening and reading) and actively participate in the process of learning new content. Faster knowledge enables students to think, analyze and conclude, to devote more research to learning, discovery and problem solving, and thus give greater contribution to its development. It is particularly important to mention that modern computers can be used by students at home and thus acquire both of which are related to curriculum and beyond. [5]

2. Teachers training in the third millennium
Social, technical and technological progress in the information era requires to establish a reasonable relationship between general and vocational education, theory and practice in teaching, education and work, to achieve an appropriate balance between the spiritual and physical reality, individual and social development; to examine models of man present, and give realistic projections of future human Profile: thoroughly educated, innovative, flexible, ready and able to put in the service of human development achievements of modern civilization and manage them. Therefore, study complexity, layers and creative functions of man in our time and future and he should be able to plan, research, provides, make decisions, control and manage social processes; ready to engage, given their contribution to society and assume responsibility for consequences of their decisions and activities. The imperative of scientific-technological revolution and the information era to modern education enable people to understand and adopt the scientific advances that they develop and enrich their personality, that it is used in the process of creating new knowledge, improve production, quality of social life and creating the conditions for confirmation own personality. Knowledge production, its processing and putting into operation to improve quality of life, the function of socio-economic and cultural development, progress and guarantee the survival of mankind in our time. Knowledge, for which we advocate, you should have all people, not just the intellectual elite or selected groups of technocratic-oriented professionals. Therefore, the information era is a reality and not abstractions, enables people to understand, accept their achievements, develop what will contribute to the socio-economic and cultural development, liberation and development of personality. These are important reasons that in our time as the field of pedagogical task of science and other disciplines to study social reality, scientific and technical and technological achievements, cultural and other achievements, pedagogical activities, its achievements and constraints and to create innovations in the organization, contents and forms of teaching, technique and technology education activities. It will contribute to better development of personality, enriching the social life with new values and the overall technical and technological development based on humanistic principles and democratic heritage of mankind. The imperative of the era of information that education system provide thorough educated person, people who have mastered the phonetic and computer literacy, enrich the cultural values, develop their skills and creative potential; personality developed social and moral culture, environment, material and spiritual goods, able to follow the scientific and cultural achievements, to form a permanent and that their education placed in the function of social progress. Education implemented some of its basic task if it is able to realize their historic created opportunities and expand the border of human existence and survival, if you allow a man to develop their potential capabilities, demonstrated what it can achieve and what it is. Modern educational technology, using multimedia systems, creates the preconditions for engagement of all senses in the process of acquiring new knowledge, develop creativity and provide more student activities in teaching and learning [4]. In the management of educational innovation is very important to overcome the resistance that occurs in teachers due to insufficient training for using innovation. Distance learning using computers, telecommunications, cable television all the more frequently used in education. Many universities in the world, in order to unify the level of knowledge that gives students, instead of previous practice by which teachers travel to other universities, introduced the practice of exchanging ideas by using communication technology. The professors held lectures at the home university, which is transmitted via the Internet to other locations. This was achieved long-term intentions in the educational management that instead of people travel ideas, which significantly reduces the material costs of the faculty. Distance education is the instructional method of work with students who do not require the presence of students and lecturers in the same room. The development of distance education dates back half of last
century when they used radio broadcasts and associate schools to education was available and those students who could not be transported to school or are not able to attend daily teaching. Federal Communications Commission in the United States in 1952 was booked about 300 television channels for education, a 1953 University of Houston has activated the first educational television studio, and since 1957, was over 160 studies that could be classified as television studios for culture and education. All those who wish to complete a particular type of school, gain new qualifications or expand existing ones, are able to create with the help of TV school, so that through the television program broadcast some cases, students watch, listen, record and trying to remember what is broadcast. The teacher (mentor) provides the necessary explanations, updates, and set tasks for students and so they solve a particular school program and acquire the desired qualifications. Sami pupils in this form of education sent to television questions, get answers, fill out the tests and meet other obligations exam, and "television" teachers are trying to manage all this, bearing in mind the requirements of modern pedagogy. TV lessons can be combined with the distance teaching so that students receive certain assignments by mail, printed matter, various materials and instructions for work, and teachers in the center, which organized classes, get them written and other works, solved problems, reports and Fig. Students who attend school TV may, through its screen, communicate with teachers via the so-called. Mail TV school. [3]

3. General aspects of distance education

Teachers have doubt if distant students learn as well as students who are studying in the traditional way in the classroom. Studies that compare distance education and traditional education suggests that teaching and learning at a distance can be as effective as traditional teaching if they use appropriate teaching methods and technology, if there is interaction between students and if there is timely feedback between teachers and students (see references Moore & Thompson, 1990; Verduin & Clark, 1991). Multimedia didactic materials in digital form, provide greater intuition, dynamism, the possibility of individualization in accordance with their own interests students. Intensive development of telecommunications technology and computer systems, permanent connection to the Internet and learning based on hypermedia systems enabled better use of computer technology in teaching. Computer classes provide flexible organization of activities, lectures and study materials and a complex evaluation of students. According to research in developed countries where distance education is used in the last decade of the twentieth century the perceived advantages compared to traditional teaching that is reflected in the following:

- Continue to individualize the possibility of creating a student to advance pace that matches its psychological and perceptual abilities, and prior knowledge of certain areas,
- In combination with other electronic sources of information (electronic encyclopedia, magazines, libraries and WWW) provides the most current research in line as their own interests,
- Regular or occasional interaction with sources of information increases the activity of students and develop critical thinking and analysis skills,
- Interaction is established not only with teachers but with students from other schools, which exchange knowledge and experience, and realize almost the same level of knowledge in different schools,
- The educational institutions where there are not enough teachers in all subjects provides that instead of people travel information, which significantly reduces costs,
- Educational software that tracks distance education is designed to provide periodic evaluation of knowledge in the learning phase, so that the next evaluation of knowledge in interaction with the teacher or other students using a self-made educational software,
- Provides the best involvement of experts from a certain area which raises the quality of teaching to a higher level,
- Universities and schools who have practices in
schools, medical centers, factories and other institutions provides a critical review and monitoring practices that make teaching more efficient and reduces costs. Distance education, certainly represents a significant innovation, which in combination with traditional instruction contributes to improving the quality of teaching. Computer interactive communication (Computer conferencing) is the use of electronic communication channels for interactive communication with the various locations around the world. The education can be used for monitoring the lectures, students practice for scientific meetings and promotions. It is particularly important in teaching the use of related faculty where teachers can follow exposure of his colleagues, along with students, and communicate, ask each other questions and problems and jointly come to an optimal solution. This approach ensures that all pupils and students follow the lectures chosen the best experts that all the teachers prepare their presentations in the area of interest and that the uniform quality of the sources of related information between the faculties and schools. Organization of teaching should be adjusted as requests for more interaction between students and teachers regardless of location of educational institutions [2]. This is achieved by increased activity of students, greater motivation and it is possible to evaluate each student activities and creates the conditions for changing roles of teachers and teaching to the jury organizer, programming and strategic. The Teacher and the teaching faculties in addition to teaching this system can be used for monitoring the methodological practices in schools, while the natural mathematical and technical colleges can be applied to monitor the production of various experiments and natural phenomena. Medical schools and faculties may be linked to clinics and hospitals and to monitor all activities of interest to the education of future doctors.

Based on the above it can be concluded that online learning offers many possibilities of the innovation process of acquiring new knowledge, with the presentation of pictures, movies, text and sound. The possibility of interaction with teachers and with other students helps develop critical thinking, creative student’s potential, and practical guidance for solving problems. Develop skills of analysis and conclusions, and understanding and accepting the principles of problem solving teaching.

4. Conclusion

Intensive development of electronics, computers, telecommunications, information theory and other sciences provide the pedagogical innovation of technology that contributes to the improvement of teaching, students' motivation, raising the quality of learning and others. Using modern media, didactic teaching is evident, dynamic and interesting, with good organization can continue to provide greater activity, better quality and durability of students' knowledge. Using modern media didactic teacher could satisfactorily adapt their teaching style, cognitive styles and learning styles of students, could meet their diverse needs and encourage curiosity and motivation for learning and ensure that each student demonstrated the specific way to search for specific teaching materials and to overcome their own pace. In recent years intensively developing didactic materials in the Web environment gives the opportunity of better study of certain areas, which corresponds to the individual interests of students (pupils) and all
others who use these teaching materials for formal or informal education. We need also to be made permanent evaluation of elearning systems and their development in accordance with the changes taking place in developed countries of the world, and based on the experiences and attitudes of teachers and students in practice. Innovation management is very complex, because of teacher’s resistance due to insufficient information and capability and poor equipment in schools. Overcoming this problem involves active participation in seminars for teacher’s training.

References: