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Development of Distance Education in Teaching Mathematics and Statistics

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Development of Distance Education in Teaching Mathematics and Statistics

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Abstract

This work is dedicated to the usage of distance education in educational system of our country. In this work some social analyzes of introducing distance education to our educational system, problems of forming and developing this process, trends and organizing are given. Imposed in University of World Economy and Diplomacy (UWED) usage of distance education was taken as an object for research and analyzes and problems can characterize other higher institutions in Uzbekistan.

Keywords: Distance Education, Global-intellectual Abode, Blended Learning Program, Social Analysis.

Introduction

The intensive development in the 21- century is developing on the basis of information exchanging, and it is explained with the widening of the intellectual abode. In fact, the process of constant information exchange, the globalization of intellectual abode occurs with the help of regular getting new knowledge.

Nowadays distance education is considered to be teaching or learning in distance. Distance education serves people to form and develop constant education system and it is cheap, quick and comfortable for the students. That's why, using, forming and developing this type of getting education plays an important role in making the education process more effective, helps the youth to get more knowledge, experience, and practice [see.1,2].

Legal Forms

It is not a secret that the maintenance of reformations in Republic of Uzbekistan is expressed in the law about education, and national program of preparation of cadres. In the 3-4 th article of "Education law", it is impressed that education in Uzbekistan is uninterrupted, consistent, open for everyone, and also it is impressed that separated from the manufacture or not separated. In one part of the national program of cadre preparation named "The stages of realization of the program" such goals as: the production and using the new generation of providing information, making the educational process informative, embracing the constant educational system with the branch of information of the computers connected with worldwide information field are expressed.

Moreover, the decree of the president of Uzbekistan on 30- may, 2002 "Developing the computing and producing the communication technologies", and resolution of the Cabinet of ministers on 6- June in 2002 "Developing the computing and the measures of producing the information and communication technologies?" are serving as a legal base for reformation of education in Uzbekistan.

Also, on the basis of decree of the president of Uzbekistan on 23- February in 2011 "About the informational service development for informational libraries and resources" developing of information resource centers, equipping, constant connection to national branch and providing the specialty with cadres is being put into.

World Experience

Due to the development of the world, each second the size of information connected with each subject is increasing. That is why using innovative technologies to give knowledge to students is becoming one of the most

important issues nowadays. Certainly, this fact can also serve as support to organize the educational system with new information technologies, even educating using distance education in addition to traditional ways of teaching, and it can help to enlarge and deepen the knowledge of the students.

Using distance education, the learners can use electronic resources, read, get tasks and offers from the teachers in any time. As for teachers, they have opportunity to refresh the information resources, check the attendance and tasks being done by students. That's why this system is considered to provide communication between student and teacher, and the system which demands more self study.

In the global intellectual abode, and studying the tendencies of development of distance education one thing can be easily observed: many developed countries are using distance education's different models. For instance, one Open University of The United Kingdom uses primary model of distance education (http:/www.open.zc.uk), Australia uses secondary (http:/www.une.edu.au), Massei and New Zealand use mixed model, Consortium model is used in Canada (http:/www.ola.bc.ca), and such developed countries as the USA and China are using the model of distance auditory. Furthermore, undoubtedly we can say that distance education is showing its effectiveness and successfulness.

Distance Learning in Uzbekistan

We should emphasize that some actions are taking place nowadays in Uzbekistan to form and develop distance education in our country. Many scientific practical conferences, seminars took place and even some scientific books were published on this topic. Some programs for distance education were used by some universities in our country and they showed positive result.

For example, in UWED, new program for usage of distance education for learning, and its pedagogical use "Blended learning" started working. Using this program for online teaching was imposed in addition to traditional and new pedagogical educating. "Blended learning" consists of theoretical and additional materials, and can serve for collecting independent works and checking the knowledge of students. On this basis observing of the motion of students for getting knowledge and creating the communication between student and professor can be possible. The system of "Blended learning" consists of these components:

- material (theoretical basis for study material, examples)
- Project (practical exercises, course papers, synopsis, etc.)
- Test (the questionnaire passed in the end of the subject)

This system creates opportunity for both: students and teachers to use internet, global information resources and communicative service in a new

method- not only using text type, but also using interactive dialogues creating such opportunities as:

- new tendency for independent works of students
- intensive development of study process
- additional method, new ways for getting information for students
- chance to get any study material in the university
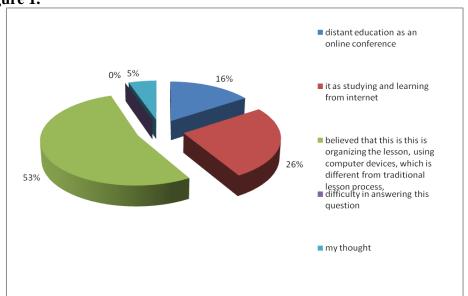- comfort to observe any student in any subject while learning study material

Consequently, the students can use electronic resources, learn, and get tasks and offers from teachers, whenever and wherever they are. As for teachers, they can regularly refresh the material, observe the attendance and check if the students are completing the task or no constantly. From this side distance education provides the communication between the teacher and learner, and requires more self study from the learners.

Considering this, "The mathematic modeling and information" chair in UWED created slides with sound and electronic bibliography for all of the subjects, and placed it into the distance education system. It would be great if this thing: creating slides, electronic bibliography, tests, observing materials would be created by the other chairs, and universities in Uzbekistan.
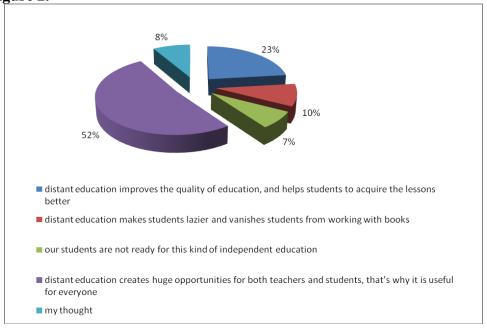

Sociological Analysis

In University of World Economy and Diplomacy, in the faculties such as International economical relations, International law and International relations, the students were given tasks, self studies,(cases, essays, presentations, synopsizes) by distance educational method, and the interactive communication between teachers and students was formed, then the students were given marks online. By this, students handed current and interval tasks over, and they were given marks depending on their points collected. This program started its process in 2011-2012 years, and nowadays certain results are seen. For example, when students were given a questionnaire on the topic "Using distance education in study process", to the question "What do you understand as distance education", 53% believed that this is this is organizing the lesson, using computer devices, which is different from traditional lesson process, 26% of students understand it as studying and learning from internet. 16% said that they understand distance education as an online conference, and only 5% of students had difficulty in answering this question (**Figure 1**).

Figure 1.

52% of students emphasize that distance education creates huge opportunities for both teachers and students, that's why it is useful for everyone, 23% stress the fact that distance education improves the quality of education, and helps students to acquire the lessons better. 10% of students think that distance education makes students lazier and vanishes students from working with books, 7% of them say that our students are not ready for this kind of independent education (**Figure 2**).

Figure 2.

So, it is visible that using distance education has positive effects for students. However in order to prevent students from vanishing from books because of this innovative project, and prevent creating new problems, we must strengthen, widen and develop scientific and practical researches. Moreover, we will have to settle the thought in the students' mind «Our students are not ready for this kind of independent education" we should have some practice about working independently in virtual-intellectual abode.

Nowadays, the base of reformation demanded from higher education is to create new viewpoints based on standards of our country's educational system. As our honorable president emphasized in his work "Uzbekistan is striving to 21- century", "Working with youth demands special attention. We must always remember that the future of our country depends on our youths' upbringing, what kind of spirituality they will have when grooving, in what relationship they will be to life, what high goals they will serve to. Moreover, appreciating the things we are doing now also depends on this."

These viewpoints are directed at getting education at high levels for students, for getting independent education to form their communicative, creative, professional competencies.

The given researches' analyze gave us an opportunity to specify the tasks which have to be done in future. For example:

- increase the number of people using distance education;
- enrich every subject with electronic material, virtual laboratories, video lesson assemblage, materials for observing, multimedia materials, and helping guides for teachers, materials for outdoor working, etc;
- create opportunity to use created electronic educational resources by placing them to system of distance education;
- increase the abilities of teachers in the technique of distance education
- to conduct scientific and practical researches from psychology, sociology, statistics, economy in order to develop distance education
- to conduct practical works with students to form culture of working independently in virtual-intellectual abode.

In fact, due to the intensive development of information technologies, environment in study process is also changing. The worldly intension shows that education's purpose is to face abundance, and development using not only traditional methods of educating, but also improving the quality of virtual education which will lead us to reach unbelievable goals, and reach human abundance. Undoubtedly, Uzbekistan, which added a great portion to world civilization, is taking nowadays and in the future will take great steps in preparing cadres with international level.

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