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Internet aided teaching of basic computer skills for the students of science teaching department from the faculty of education in Trakya University

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Abstract

Beginning to use computers in classrooms and schools shows a great revolution nature in field of training. With the technological developments, classical class environment composed of books, notebooks, blackboards and chalk is replaced by more modern educational environments. Computers, data shows, printers, scanners and educational software formed intelligent classes. In the course of time, Internet became prevalent and began to be used in the schools, this brought in new dimensions in field of training. In a short period of time, concepts such as ‘internet- aided education’, ‘internet based education’ took its place in the literature. At the present day, a great many of university including Trakya University, is currently carrying on ‘internet- aided education’ application. In the first instance, theoretical based courses such as Turkish Language, Revolution History and Foreign Language are teaching as internet- aided courses. These courses are elective and obligatory in different departments in the Universities. In consequence, it needs quorum of instructors and physical environment facility to educate dozens of students on these courses. Internet- aided education, takes important part to supply these needs significantly. Numbers of these courses are on the increase gradually in the Universities. In the length of time some courses which have applications began to be added in numbers of these courses too. In 2007-2008 academic year, courses Computer I and Computer II which are teaching to 38 students at Science Teaching Department of Faculty of Education in Trakya University were presented as internet– aided education. So as to take students’ opinion about contents of the courses on the internet environment and methods, a questionnaire which is built up by the writer and written students feedback were used. In the first part of the present study, the concept of “internet aided -education” is explained. Second part is giving information about internet– aided education performance and preparation stage about contents of the courses on the internet aided education in Trakya University. As for the third part, process of Internet aided teaching of Computer I and Computer II courses, given in Science Teaching Department of Faculty of Education in Trakya University, is explicated. In the fourth part of the study, students’ request and ideas about contents of the courses and success rate of 38 students who are trained by internet aided education is explained. As for the conclusion and suggestion parts, evaluations related to application process are expressed.

Keywords: Internet aided education; education technology; e-content design; computer teaching; science teaching department;

1. Introduction

The internet is a kind of technology which enables the meeting of student-teacher-class. Electronic environments in which individuals or groups in the same or different places make connection via computers and share texts, graphics and data can be formed by means of the Internet. At present, many institution and organization make use of the Internet as an educational technology [1].

Internet use has two different applications in education. First one is that the internet is used as a booster tool in curricular and extracurricular activities in order to support learning-teaching activities of the formal education. Second one is distance education applications in which educational applications are performed via the internet [2].

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The use of the internet to support formal education can be defined as Internet Aided Education (IAE). In this technique, students perform some part of the learning activities by using the internet. Education is followed both face-to-face and also via the internet. During the term, students are made to use the internet according to the qualification of the software being used and the teaching plan prepared by the educator. Educator under the administration of IAE may direct the student to the internet to do different activities. For example, different internet tools such as research, doing/sending homework, e-mail, academic counseling, asking/answering questions via forums, discussion groups, pilot tests and study groups may be used. The use of aforementioned tools curricular or extracurricular brings about an increase in effectiveness and quality of education.

Owing to the ample opportunities of the internet, a lot of advantages can be gained from IAE. Flexibility, interactivity, accessibility, reusability, share ability, updatability, repeating the course, permanence in learning, usability of different learning and teaching methods are some of these advantages [3], [4]. Following are the short explanations of these advantages:

Flexibility: In accordance with the different requests of the people who want to receive internet aided training, certificate, graduate and postgraduate educational programs could be opened. Moreover, in-service training courses and skills courses could be received by wide population. In this way, flexibility in education could be maintained.

Interactivity: During teaching-learning period, students can get into interaction not only with other students but also with educators and make sharing via written, voiced or video tools in LMS being used or in a similar educational environment. In this way, the student can obtain consistent and unlimited knowledge acquisition.

Accessibility: Owing to the under developing computer and internet technologies of today, students can access all kinds of educational knowledge in a short time and with low cost. Students do not need to stand by to receive the information they want. Internet relay computer is enough to access the information.

Reusability and share ability: Course materials prepared to be used in the Internet environment could be reused. Especially, SCORM compatible content can be easily adapted for any kind of LMS and therefore can be used by various educational institutes. In other words, it can be shared easily.

Updatability: Course materials prepared and used in the electronic environment can be updated anytime. Furthermore, updating can be performed in a shorter time than that of written materials, with lower cost and with the help of a large number of educators. Therefore, updatability is a very crucial feature for the students and teachers in the internet aided education.

Repeating the course: Students have the opportunity to repeat the subjects they missed or could not understand well in the class environment as many times as they want without any place and time limitation.

Permanence in learning: permanence of the learned materials in the Internet environment supported by visual and audio learning materials is much higher than that of in classical class environment. This percentage is reported to be 25% by the studies.

Usability of different learning and teaching methods: In internet aided education, several methods such as group works, homework projects, forum, question and answer in chat rooms can be applied via various course materials and information technologies together with the help of the software being used.

Besides, in internet aided education, paper and stationary expenses substantially lessen. Transforming the materials such as homework submitting, report, written sources to the internet environment minimizes the use of paper and stationary equipments.

1.1. Internet aided education in Trakya university

Today, IAE is one of the modern faces of education and used in many of the educational institutes. Due to the benefits mentioned above, Internet use in education is becoming more important day by day. Several educational institutes being aware of these benefits aim to increase the efficiency to high levels by making use of the Internet opportunities.

Internet aided educational studies in Trakya University were started with a pilot application in spring term of 2006-2007 academic year. Then, it was aimed to get prepared for transition to the internet aided distance education. Campus courses were decided to be given with the Internet aid in the following year by making up the deficiencies and defects in the direction of positive/negative feedback from both students and instructors. Computer I and Computer II courses given in faculties of education are two of these courses. E-Trakya Virtual Campus was used for the internet aided presentation of those courses. The address of http://e-trakya.trakya.edu.tr was used for the home page of the campus. Below is the virtual Campus home page.
2.1 Steps of preparing the content of internet aided courses

Preparation of the course content is started one term before the term in which courses will be given. By this way, courses will not be halted in case of any technical or staff-related problem. Course contents were taken from the instructor in weekly parts and in electronic environment. Contents, in Word format generally, are analyzed with the instructor and story of the course in the Internet environment is planned. Contents are controlled by an editor before the courses are taught in IAE. Later, edited contents are sent to the relevant person so that story boards are prepared. After the errors in story board are corrected, animation and sound effects are developed and put into the suitable pages according to the course story. In this way, the course became much more efficient, easy, enjoyable and motivating. E-contents enriched by visual and audio tools are again worked out by the editor and the course instructor. After the errors and defects are made up, e-contents are sent to the system administrator in order to be included in the LMS. System administrator put the e-contents in the use of the students weekly. This cycle continues till the end of the term. Students and instructors are subjected to an orientation in the beginning of the term in order to be able to follow an Internet aided course. During this process, each information from the entering the platform to the usage of the menus is explained in detail by application. Questions are answered. Information about the process of the course is given during the term.

2.2 Internet aided presentation of the course

Internet aided presentation of the Computer I and Computer II courses was performed both in a class environment and on e-Trakya Virtual Campus platform. In Virtual environment, tools such as forum, message, homework taking/sending, quizzes were generally used. Course presentation was initially performed by the instructor in a class environment. Students who missed, did not understand or wanted to repeat the course could access the course content by entering the platform anywhere in anytime. Students who want to follow the Computer I course in the virtual campus meet Course Main Page as seen below after entering the user name and password. The student who open the course Main Page first see the introduction about the course written by the instructor. This text gives information about the aim, objectives and presentation of the course.
The menu in the left part of the screen enables students to use any kind of educational activity tool. These tools are entitled as Course Information, Course Materials, Personal Practice Materials and Activity Reports. Via these tools, students can make use of teaching and learning functions such as browsing the course plan of the term, listing the resources used or recommended by the instructor, browsing the class list, sending messages to the other students and the instructor, browsing the course contents, taking/sending homework, following the academic record, joining a forum, highlighting the important lines, and following the activity reports.

Apart from the menu explained above, students can perform different activities via menu bar located upper part of the screen. For example, “Announcements” menu to read the announcements about the course and the platform, “Messages” menu to send e-mail or messages in the system, “Chat” menu to enter a chat room, “FAQ” to solve a problem asynchronously, “Help” for asynchronous help about the use of the menus of e-Trakya Virtual Campus, and “Contact Us” menu for the technical problems can be used. The student who wants to read the course contents of Computer I use the “course content” link located in the menu on the left. When clicked on this link, the following screen can be seen.

Above is the list of the content a student sees in the 14th week of the term. In the first week of the term, only the content of Week 01 can be seen on the screen. Each week, a new packet of content is opened to the use of the students. For example, in the 6th week of the term, this list can be seen from Week 01 to the Week 06. The student click on the week in which the subject he wants to read is available. Following is the content screen of the 5th week of Computer I course.
Students can switch between the subjects by using the Previous-Next buttons on the lower-right side of the screen as well as by clicking on any subject title in the menu on the left side of the screen. In order to escape from the subject explanation window, “Close” button on the lower-right side of the screen can be used. Content of Computer I and II courses is presented to the students via explanation screen and application screen. On the explanation screen, course content is seen in a text format. Meanwhile, application of the processes being explained is animated. Students can read explanation pages as many times as they want and go back to any page. Above are the examples of these windows. After the explanation is finished, application screen appears. Application screen is opened with the title of “Now You Do It”. On the application screen, students are asked to apply the processes explained via animation. In this way, application based processes are reinforced and permanence of the information is maintained. Following is the example of the window “Now You Do It”. If the student fails to apply the process, he/she can watch the correct application of the process on the screen by using the “Show” button. “Go Back” button enable the student to try to do the application again.
Test questions are available at the end of each week for the students to test what they have learned. Students can repeat these questions as many times as they want and skip to any question. Screen image of repetition test is as follows.

Figure 6. Screen image of 6th week’s repetition test

2.3 Views of students and efficiency report

Total 38 students took Computer I and Computer II courses as an internet-aided. At the end of the year, students are requested to write their point of wives and suggestion about teaching process of Computer courses by internet-aided method and platform. According to this;

- %76 of the students think that by this method they find learning opportunity on ones ‘own in an easy way,
- %63 of the students think that content of the lessons fairly understandable, readable, helpful and educational,
- %0.2 of the students find that, at the end of the subject’s ‘now you practice’ part is boring,
- %47 of the students think that as compared with class environment, in Forum they can find much more sharing opportunity,
- %80 of the students want the other courses are tough by the same method,
- %31 of the students think that it is necessity to do more attractive the course’s home page,
- %28 of the students want that content of the courses are to be downloadable feature.

In 2007-2008 Academic year, autumn term achievement average Computer I course is 80, in spring term Computer II course’s achievement average is 76. These averages show that by internet-aided method MS Office Programs can be taught. Students, can both repeat the courses and practice the subject in the Now You Practice part. Thanks to this, end of the both terms, it is watched for the students got basic computer skills by internet-aided method.

2. Results and Suggestions

Internet aided teaching of Computer I and Computer II courses in Science Teaching Department of Faculty of Education in Trakya University are advantageous in many ways:
- After seeing that a course can successfully be followed without any time and place limitation, students demanded a similar application for the other courses.
- In the light of the verbal feedback instructors received from students, it was concluded that allowing students’ access to the courses out of the campus increased their self-confidence in computer and internet use.
- Students got into much more interaction with each other via Forum module in E-Trakya Virtual Campus environment than they do in a classical class environment. Many students who did not speak to each other in a classroom environment had the chance of getting to know each other by this way.
- Another crucial advantage of the application was that it helped Distance Education Centre to overcome its deficiencies.
- Moreover, this application was a serious experience for Trakya University in terms of internet aided education which it is getting prepared to put into practice.
- Successful application of internet aided Computer courses and noticeable success level in the exam marks of the students encouraged the other instructors of the University and percentage of support given to the studies of internet aided education increased.

In the light of these findings, it can be stated that internet aided teaching can be used for many other courses, initially for Computer courses being taught in the faculties of education. Considering that Courses of Computer I and II are substantially based on application, internet aided education can be used not only for text-based courses but also for application-based courses. Due to many advantages of it, Internet aided education has rapidly taken its place among educational systems. A lot of applications which are in accordance with these results have still been continuing abroad and in our country.

References