



Computer can be used at all Level of Educational System

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COMPUTER CAN BE USED AT ALL LEVELS OF EDUCATIONAL SYSTEM

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Abstract

This paper inspected the uses of computer and its relevance to educational system in Nigerian tertiary institutions. The need for computer education and its objectives in Nigerian educational system were recognized and deliberated. The characters a lecturer would play and the challenges they would have to look in using computer for instruction were also highlighted. Likely clarifications were recommended to ensure successful establishment of computer education programme in Nigerian tertiary institutions.

Key words: computer education, analog computer, digital computer, hybrid computer.

INTRODUCTION

In an increasingly technological society, computers saturate many aspects of our culture and daily lives. In the case of education, the National Center for Education Statistics (NCES) found that 97 percent of U.S. teachers had a computer in the classroom every day in 2009, evidence of the rapid transformation of education through computer technology. While educators use computers differently in their classrooms, the devices provide a number of educational opportunities, including uses in curricular development, research, record-keeping, computer literacy training, data processing and presentation.



Computer-Based Instruction

Computer-Based Instruction (CBI) refers to any teaching methodology that uses computers as a key element of information transmission. Computers, for example, can be used to present content and lesson plans to students in more engaging multimedia formats or used in test-taking to simplify grading and evaluation. CBI is especially useful in high-enrollment classes and in special needs groups that bring together students with varying mental, physical and behavioral competencies, because computer applications can be adjusted to different learning styles and paces when the instructor is unable to provide individual attention to each student.

USES OF COMPUTERS IN EDUCATION

CBT are different programs that are supplied on CD-ROM. These programs include text, graphics and sound. Audio and Video lectures are recorded on the CDs. CBT is a low cost solution for educating people. You can train a large number of people easily.

Benefits of CBT

Some benefits of CBT are as follows:

- a) The students can learn new skills at their own pace. They can easily acquire knowledge in any available time of their own choice.
- b) Training time can be reduced.
- c) Training materials are interactive and easy to learn. It encourages students to learn the topic.
- d) Planning and timing problems are reduced or eliminated.

- e) The skills can be taught at any time and at any place.
- f) It is very cost effective way to train a large number of students.
- g) Training videos and audios are available at affordable prices.

Computer Aided Learning (CAL)

Computer aided learning is the process of using information technology to help teaching and enhance the learning process. The use of computer can reduce the time that is spent on preparing teaching material. It can also reduce the administrative load of teaching and research. The use of multimedia projector and PowerPoint presentations has improved the quality of teaching. It has also helped the learning process.

Distance Learning

Distance learning is a new learning methodology. Computer plays the key role in this kind of learning. Many institutes are providing distance learning programs. The student does not need to come to the institute. The institute provides the reading material and the student attends virtual classroom. In virtual classroom, the teacher delivers lecture at his own workplace. The student can attend the lecture at home by connecting to a network. The student can also ask questions to the teacher.

Online Examination

The trend of online examination is becoming popular. Different examination like GRE, GMAT and SAT are conducted online all over the world. The questions are marked by computer. It minimizes the chance of mistakes. It also enables to announce the result in time.

Research and Communication

Of the computers located in classrooms, the NCES found that 93 percent had access to the Internet, turning each computer into a powerful research station with access to global information. Students can use computers to compile information and access reference materials, enriching the content presented in the classroom and facilitating student access to information. Internet connections also provide a quick communication method through email, message boards and chat programs, allowing teachers to communicate with students and parents or for students to communicate with each other during group projects.

Data Processing and Presentation

Even without an Internet connection, a computer's processing power helps students quickly organize data in spreadsheets or databases and perform calculations and basic data-modeling. Moving data to visual presentation formats, students can also prepare digital presentations for instructors and fellow classmates. Teachers can make use of the same programs for curricular development or to store and organize information about grades, participation and attendance. Unlike paper formats, digital files are easier to edit and transfer, streamlining communication between teachers, students and parents and saving time when teachers update their classroom materials.

Computer Literacy Education

Beyond the contributions computers make to the traditional curriculum - making history lessons more engaging or grammar instruction more personalized - learning how to use and manipulate

computer applications is a goal of educational computing in itself. With a world and job market that increasingly demands computer skills, students who learn to use the devices from an early age are at a marked personal and professional advantage. In fact, developing countries like Pakistan have ambitious computer distribution programs for students designed to build computer literacy and democratize computer access.

Computers are used to control large and small machines which in the past were controlled by humans. They are also in homes, where they are used for things such as listening to music, reading the news, and writing. Modern computers are electronic computer hardware.

Computers are used in so many fields in our daily life. From Engineers to Doctors, Students, Teachers, and Government Organization they all use computers to perform specific tasks, for entertainment or just to finish office work. Computers have made our life easier. With greater precision and accuracy and less time taking computers can do a lot in short time while that task can take a lot of time while doing manually. Computers have taken industries and businesses to a whole new level. They are used at Home for work and entertainment purposes, at Office, In hospitals, in government organizations. Here we are going to discuss some of the uses of computers in various fields.

USES OF COMPUTERS IN BUSINESS

The use of computer technology in business provides many facilities. Businessmen are using computers to interact with their customers anywhere in the world. Many business tasks are performed more quickly and efficiently. Computers also help them to reduce the overall cost of their business. Computer can be used in business in the following ways.

Marketing

An organization can use computers for marketing their products. Marketing applications provide information about the products to customers. Computer is also used to manage distribution system, advertising and selling activities. It can also be used in deciding pricing strategies. Companies can know more about their customers and their needs and requirements etc.

Stock Exchange

Stock Exchange is the most important place for businessmen. Many stock exchanges use computers to conduct bids. The stockbrokers perform all trading activities electronically. They connect with the computer where brokers match the buyers with sellers. It reduces cost as no paper or special building is required to conduct these activities.

USES OF COMPUTERS IN MEDICAL FIELD

Hospital Management System

Specialized hospital management software is used to automate the day to day procedures and operations at hospitals. These tasks may be online appointments, payroll admittance and discharge records etc.

Patient History

Hospital management systems can store data about patients. Computers are used to store data about patients, their diseases & symptoms, the medicines that are prescribed.

Patients Monitoring

Monitoring systems are installed in medical wards and Intensive care units to monitoring patients continuously. These systems can monitor pulse, blood pressure and body temperature and can alert medical staff about any serious situations.

Life Support Systems

Specialized devices are used to help impaired patients like hearing aids.

Diagnosis Purpose

A variety of software are used to investigate symptoms and prescribed medication accordingly. Sophisticated systems are used for tests like CT scan, ECG, and other medical tests.

USES OF COMPUTER AT HOME

Computer can be used at home in the following ways.

Home Budget

Computer can be used to manage Home Budget. You can easily calculate your expenses and income. You can list all expenses in one column and income in another column. Then you can apply any calculation on these columns to plan your home budget. There are also specialize software that can manage your income and expenses and generate some cool reports.

Computer Games

An important use of computers at home is playing games. Different types of games are available. These games are a source of entertainment and recreation. Many games are available that are specially developed to improve your mental capability and thinking power.

Working from Home

People can manage the office work at home. The owner of a company can check the work of the employees from home. He can control his office while sitting at home.

Entertainment

People can find entertainment on the internet. They can watch movies, listen to songs, and watch videos download different stuff. They can also watch live matches on the internet.

Information

People can find any type of information on the internet. Educational and informative websites are available to download books, tutorials etc. to improve their knowledge and learn new things.

Chatting & Social Media

People can chat with friends and family on the internet using different software like Skype etc. One can interact with friends over social media websites like Facebook, Twitter & Google Plus. They can also share photos and videos with friends.

ANALOG COMPUTER

Analog computer is used to measure continuous values. It measures a physical property like voltage, pressure, speed, time and temperature. An analog computer takes input in analog form and gives output in analog form.

Its output is usually displayed on a meter or scale. Analog computer has low memory and fewer functions. Analog computer is mainly used in the field of engineering and medicine. Examples include: Examples of Analog computers include:



Thermometer



Speedometer

DIGITAL COMPUTER

A digital computer works with digital data. Digital computer uses binary number system. Binary number system consists of only two digits 0 and 1. A digital computer represents data in digital signals. A 0 represents OFF and a 1 represents ON. Digital computer performs arithmetic and logical operations on data. It gives output in digital form.

Digital computers are very fast. These computers can store results. They have large Memory (that is data storing capacity). Today most of the computers used in offices and homes are Digital computers. Examples

Personal Computer (also called PC or Micro Computer)





HYBRID COMPUTER

A hybrid computer is a combination of both analog and digital computer. Hybrid computer can handle both analog and digital data. A hybrid computer combines the best characteristics of both the analog and digital computer. It can accept data in both analog and digital form. Examples

Hybrid computer devices are used in hospitals that may calculate patient's heart function, temperature and blood pressure etc. This calculation may be converted into numbers and shown in digital form. For example,



Recommendations

It is ensured that a successful establishment of computer education programme in Nigerian tertiary institutions. It is also recommended that computers are being used strongly in educational organizations to progress the learning process. Teachers must be a computer literate in order to use audio video aids through computer to prepare lesson plans. They can use Microsoft Power Point to prepare automated presentations about their lectures. These automated presentations will be demonstrated on software projectors in class rooms. This will be interesting and easy to learn for students. Automated presentations are easy to deliver for teachers too, these presentations save a lot of determination and period.

Conclusion

Today, computers are being used in every field of life. It can be used for different tasks. It is used for data processing. It is used to calculate or perform some mathematical work. It can be used for word processing, record keeping, listening music, playing computer games etc. And above all, it is being used to access and use Internet, a huge source of information.

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