

Computer Aided Instruction – Future Ahead In Classroom

Neha Choudhary

Dr.Manoj Lata Singh

Maharaj Vinayak Global University , Dhand , Amer , Jaipur, India

Abstract

Computer-aided instruction (CAI), is a program of teaching materials presented through a computer or computer system.

The use of computers in education began in the 1960s. With the advent of convenient microcomputers in the 1970s, computer use in schools has spread from primary education to universities and even some preschool programs. The teaching computer is basically used in one of two ways: either to provide a direct data representation or to fill a teaching role, and the student tests it in understanding.

If the computer has a tutorial, the student will be asked questions through the computer; the student enters the answer and then immediately answers the answer. If the answer is correct, the student will encounter a more challenging problem; if the answer is incorrect, various computer information will indicate defects in the program, and the program will bypass more complex questions until the student shows grasp in the field. This article intends to through light on importance of CAI and its challenges in its applicability in the actual classroom.

Index terms: Computerized teaching; Develop interactive technology; E-learning; Computer learning debate;

i) INTRODUCTION

Computer-aided instruction (CAI) refers to a teaching and learning system that is executed almost entirely by computers. The term "computer-based learning" (CBL) refers to the use of computers as a key component of an educational environment. While CAI and CBL can refer to the use of computers in classrooms, they are more broadly referred to as structured environments that use computers for educational purposes. Computer programs allow students to work at their own pace and provide direct and personalized feedback. Misunderstandings can be corrected as they occur, and student records and scores are available to teachers. The use of computers in teaching and learning is an important advancement in providing the highest quality education, so that everyone can reach their full potential.

ii) COMPUTERIZED TEACHING

Computer-aided instruction (CAI) includes a variety of computer-based packages that provide interactive instruction. Some are complex and expensive commercial packages, while others are simple solutions developed by individuals for local conditions. Since the work done in one subject area is difficult to transfer to other subject areas, it takes a lot of time and money to develop. However, once the application is established, the cost per additional student is relatively small. This also reduces the geographic and time constraints on employees and students due to the need for fewer face-to-face lectures and seminars.

Computer-assisted instruction can be Internet-based or run from a CD or DVD on a personal computer. The demonstrations on the computer are especially suitable for visually intensive, detail-oriented and difficult to conceptualize topics. Using the "virtual" case, upper-level science courses can benefit the most from a complex biochemical process or microscopic

image, as well as reducing the need to use animal or human tissue. Since the 1970s, CAI packages have become more advanced, interactive and attractive multimedia learning experiences.

Computer education systems usually include the following features:

- Assess students' abilities through pre-tests
- Provide educational materials in a navigable form
- Provide repeat training to improve students' knowledge
- Provide game-based training to increase learning fun
- Evaluate student progress through post-testing
- Guide students through a series of courseware instructional programs.
- Record student scores and progress for later review by courseware instructors.

For some systems, feedback can be targeted at a student's specific error, or the computer can navigate the student through a series of questions to accommodate what the student seems to have learned or not. This feedback is particularly useful when learning languages, and many computer-aided language learning (CALL) programs have been developed. A typical CALL program provides the stimulus that learners must respond to. Stimulation can be presented in any combination of text, still images, sounds, and motion video. The learners can respond by typing on the keyboard, clicking or pointing with the mouse, or speaking with the help of the microphone. The computer provides feedback indicating whether the learner's response is right or wrong, and in more complex procedures, attempts to analyse the learner's reaction and identify the error.

A learning activity software such as the open source system LAMS (Learning Activity Management System), supports an activity sequence that can be collaborative and adoptive. Computer-aided evaluation (also often referred to as electronic evaluation), does automated multiple-choice testing to more complex systems.

Communication technology is usually categorized based on whether the activity is online with others. Non synchronous activities use technologies such as blogs, wikis, and discussion boards. As with chat sessions or virtual classrooms or meetings, all participants join the simultaneous activity.

iii) DEVELOPMENT OF INTERACTIVE TECHNOLOGY

Lecturers and teachers have gradually adopted computer-assisted instruction for a variety of teaching purposes since the early 1970s. The challenge for CAI is to understand the power of the media and how to make the most of its advantages.

The first general system for computer-assisted instruction was the PLATO system developed by the University of Illinois at Urbana-Champaign. The PLATO system evolved with the participation of Control Data, which created the first authoring software for creating learning content. The Scientific Research Council wrote the first CAI math system for the K-6. Wicat Systems then used Pascal to create WISE as their authoring tool and developed English and math courses for the K-6. The first complete CAI class for K-6 students was established at the Waterford Elementary School in Utah using the Wicat system. The first public CAI classroom has its own layout and design, implemented by the Wicat system of Singapore's Baal Systems (later called Virtual Systems), as a joint operation between Wicat and Baal. It is from this design that all computer learning centers are constantly evolving.

With the technological changes and the development of software, some design principles remain unchanged:

- Interdisciplinary team
- The importance of content
- Quality production value
- Choose and understand educational methods

iv) *ELECTRONIC LEARNING*

E-learning is stated usually to computer-amended learning, though it is protracted to include the use of mobile machineries such as PDAs (Personal Digital Assistants) and MP3 (Digital Audio) players. It can comprise the use of web-based instructional materials and hypermedia, multimedia CD-ROM or websites, discussion boards, collaboration software, email, blogs, wikis, computer-aided assessments, educational animations, simulations, games, learning management software, electronic voting Systems, etc., may use a combination of different methods.

Along with the terms "learning technology" and "educational technology," the term is often used to refer to learning techniques in a broader sense than computer-based training or computer-assisted instruction in the 1980s. It is also broader than the terms "online learning" or "online education", which usually refers to pure web-based learning. In the case of using mobile technology, the term "mobile learning" has become more common. E-learning can also refer to educational websites, such as those that provide worksheets and interactive exercises for children. The term is also widely used in the commercial sector and is often referred to as cost-effective online training.

E-learning is naturally suitable for distance learning and flexible learning, but it can also be used in conjunction with face-to-face teaching, in which case the term "mixed learning" is often used.

Especially in higher education, a virtual learning environment (VLE) can be established (sometimes combined with a management information system (MIS) to create a "management learning environment") in which all aspects of the curriculum are handled by a consistent user. standard. Established universities and newer online colleges offer a wide range of academic degrees and certificate programs across the Internet. While some courses require students to take part in some campus courses or directions, many courses are offered entirely online. In addition, universities can provide online student support services such as online consultation and registration, e-consultation, online textbook purchases, student council government and student newspapers.

v) *COMPUTER LEARNING DEBATE*

Since its inception, computer-based learning has been the subject of close attention and debate, and there are countless arguments for both support and opposition.

Those who are sceptical about the value of CBL often think that it can only teach its procedural restrictions; it is better to have a human teacher because it can only answer the questions that are incorporated into it. In addition, critics such as Neil Postman believe that the computer-centred curriculum teaches the "technical bureaucracy" belief system, making all education an uncritical vocational training. The prominent use of computers in the classroom teaches how to manipulate technology to elicit the desired response in a non-collaborative, irrational way, rather than developing more general reading, writing, and critical inquiry skills.

In contrast, CBL advocates like Jonathan Bishop believe that using computers in education can lead to social justice and can be successful when web logs are used to reflect on learning logs. One of the arguments put forward by CBL supporters is that it can provide quantifiable immediate feedback to its users. In particular, computer-based learning is often seen as the most effective and effective way to conduct distance education because it can create lesson plans that allow people to learn at their own pace, through the Internet or software installed on personal computers in various places.

Some computer learning advocates believe that the best use of CBL is to complement the more traditional curriculum, to promote interest in the topic, and to develop the technical and information skills that CBL promotes. Companies and schools that now offer CBL products often use this approach to create and promote their educational services:

Creating excellence in learning opportunities and changes in teaching delivery requires a path that involves all stages of imbalance, reflection, and continuous improvement.

CONCLUSION

Hence to conclude; effectiveness of traditional methods is low in the classrooms, the need for computer programs is critical. Good media is the most important factor in education. If education is to win the game, all the resources available in the world need to be interconnected to accept the challenges of science and technology to create a better world. Good education is vital to the survival and development of world democracy. An effective education program is essential, but the impact of computers is still an open question. Even though, in recent years, due to the vigorous development of science and technology, it is still necessary to consider the effectiveness of CAI on the achievement of secondary school students. Science-related research should emphasize that today's students will become more successful scientists and researchers in the next few years. To achieve this goal, much

research has been conducted in India and in the field of CAI. Whitworth & Berson (2003), claiming that technology-based learning can help develop students' decision-making and problem-solving skills, data processing skills. In a student-centred classroom, with computers, students can collaborate, use critical thinking and find alternative solutions to problems.

REFERENCE

E-learning strategies, learning theory, instructional design, web design, e-learning communication/design. Retrieved on December 8, 2006.

Learning activity management system, LAMS learning activity management system. Retrieved on December 7, 2006.

Plato, PLATO: The emergence of an online community. Retrieved on December 8, 2006.

Allison Druin and Cynthia Solomon, designing a multimedia environment for children (John Wiley & Sons, March 1996, ISBN 0471116882).

Neil Postman Information Page, The Neil Postman Information Page: Books, Online Articles, Audio, Bibliography, Related Books. Retrieved on December 8, 2006.

Social justice through e-learning from December 7th, 2006 from Jonathan Bishop - Official website

Will the network generation embrace mixed learning? Jonathan Bishop - the official website. Retrieved on December 7, 2006.

Andrea R Gooden, Computer in Class: How teachers and students use technology to change learning (San Francisco, California: Jossey-Bass, published October 1996, ISBN 0787902624).

Druin, Allison and Cynthia Solomon. Designing a multimedia environment for children, John Wiley & Sons, 1996. ISBN 0471116882.

Gooden, Andrea R. Computer Class: How teachers and students use technology to change learning, San Francisco, California: Jossey-Bass, 1996. ISBN 0787902624.