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COMPUTER: RESOURCES IN TRAINING – ERUDITION PRACTICE

- DR.S.MOHAN,
ASSOCIATE PROFESSOR & HEAD
DEPARTMENT OF ENGLISH,
ROEVER ENGINEERING COLLEGE,
PERAMBALUR. TAMILNADU, INDIA.

Abstract:

Educational technology implies the development, application and evaluation of systems, techniques and aids in the field of learning. Educationists categorise the concept of educational technology into two approaches, vis the hardware and the software approach. The hardware approach is the result of the impact of scientific and technological development during the past century. The software approach uses the principles of psychology for building in the learner a complex repertory of knowledge or modifying his behaviour. Projectors, tape-recorders, television, teaching machines, computers are called educational hardware. Among all the technological options available to a teacher, none commands more awe and respect than a computer. It has brought about a revolution in human life since it is fundamental for the rapid flow of information. Today computers are emerging as a major teaching – learning tool and have been found to be effective at all levels, areas and types of learning environments – formal class room instruction, non-formal and distance education and individual programmed learning. Computers are as useful for a teacher as for as a learner.

Key Words: Educational Technology, Teaching Machines, Computers, teacher as a learner.

Various Applications of Computers in Education

There are multitudinous ways to use computers in education and each way is usually identified with a catchy acronym viz.

1. CAI   –   Computer - Assisted Instruction
2. CAL   –   Computer - Assisted Learning
3. CAT   –   Computer - Assisted Training
4. CBI   –   Computer - Based Instruction

5. CBE   –   Computer -   Assisted Education
6. CBL   –   Computer -   Assisted Learning
7. CBT   –   Computer -   Assisted Teaching
8. CBT   –   Computer -   Assisted Training
9. CMI   –   Computer -   Managed Instruction
10. CML   –   Computer -   Managed Learning

After carefully examining these acronyms CAI, CBI and CMI, CAI, when the computer is prime and the teacher is supportive.CBI, when the teacher is prime and the computer is supportive and finally CMI, to maintain performance of records, diagnostics and descriptions.

Computer Assisted Instruction (CAI)

CAI is an interesting innovation in educational technology. It reduces excessive verbalism and low efficiency in conventional method of teaching. It is applicable to the lower level of learning such as spelling, reading and writing as well as the higher level of learning like university subjects. Any lesson material in any subject can be programmed for CAI and the lesson material should be presented in the form if words, pictures and experiments. The institution can be arranged for a large number of students with scope for maintaining quality and quantity in education. Computer based programmes provide the maximum amount of flexibility including alternative parts and different examples for the students who need them. Therefore the learner goes at his own pace, receives immediate personalized feedback and freely chooses the content, sequencing and degree of difficulty of instruction. Because of the variety and versality, CAI serves as an effective educational tool to meet the varied problems of students on a sound educational basis.

Different Modes of CAI

CAI software can be categorized under a variety of modes which include lecture, tutorial, practice drills, discovery, simulation, instructional games and teacher utilities.

Lecture Mode

Using a large projection screen the teacher delivers a normal lecture. The great advantage is legibility and student participation.

Tutorial Mode

Designed on the lines of programmed learning, small units of content are presented through question-answer mode. The student works by himself and is provided immediate feedback. It teaches concepts in much the same way a teacher would in one–on–one situation.

Practice Drills

The learner is provided practice on skills previously taught. The programme is so designed that the students get drills until a skill is not only learnt but is brought to state where the response becomes automatic.

Discovery Mode

Using the inductive approach the learner finds his own answers through trial and error method, especially effective for problem–solving skills in a learner.

Simulations

Excellent for skill acquisition and decision making, these programmers are designed to depict real world happenings to experience the actual event. Simulation exercises help the learner in making decisions, see the evaluation of the decision and revise it effectively.

Teacher Utility Software

It includes a variety of programmes such as word processing data – base management, authoring packages, classroom management system, etc. The classroom management system helps the teacher to monitor the progress of the students as they move through a prescribed curriculum. It permits the teacher to organize, store, evaluate and report information on pupils' achievement.

Multimedia Computer

Multimedia is the integration of sound, animation, still images, hypertext and video through a computer programme. For effective communication and providing new dynamic environment for instructors, students and others in the field of education and training, multimedia computer is more effective. With multimedia wide variety of media options can be packed together to make learning move exciting.

Internet

Internet is the youngest in the family of instructional media. The internet has revolutionized the very process of learning. The learner is encouraged to explore and locate information, ask questions and find solutions. With the coming of World Wide Web browser, operating internet has become just a point and click game. A number of sites are available where teachers and learners can locate vast amount of information of special interest to them.

Advantages of Computers in Education

The following are the special advantages of computers in Education,

i) Store large quantities of data

ii) Offer flexibility of pace, time and place

iii) Offer flexibility to retrieve the precise information without having to go through any prescribed system

iv) Compact and light in weight and do not require much space. Portable versions are very popular.

v) Offer interactively with the learner

vi) Rapid, precise and error free calculation, data analysis and assessment

vii) provide immediate feedback

viii) can be linked to other learners or users around the world

ix) Can simulate real life or laboratory objects, operations and situations

x) Allow individualized and private working

xi) Can be linked to other learners or users around the world

xii) Deliver information in a reliable and consistent standard form

xiii) Can be used for any discipline, for any desired tasks, and

xiv) Motivate and reward students in a number of ways.

Conclusion

The introduction of computers in the education field has changed the role of the teacher from his conventional assignment of delivering lectures to a guide and a problem solver, but the fear of elimination of the teacher is baseless. The teacher takes an active role and uses the computer as a tool to enhance the quality of the instructional process and educational contributions. In the future, it will become an integral part of teaching – learning process in the classrooms.

References

1. Balasubramanian, N. (2001) Computer – Based Instruction in Developing Reading Skill Among Primary Children, Journal of Indian Education, Vol.XXVI No.4, 29-38.
2. Chauchan, S.S. (1982) A Text Book of Programmed Instruction. New Delhi: Sterling Publishers (P) Ltd.
3. Kadhiravan.S, Balasubramanian, N.(1998) Self-Regulated Learning and Computer Assisted Instruction: Theoretical Issues, Perspectives in Education, Vol.14.No.4, 207-211.