

Utilities of computers

Computers are being increasingly employed for classroom instruction as also for individualised and distance education. Computer-Based Instruction (CBI) is variously known as Computer Aided Learning (CAL) in the UK and Computer Assisted Instruction (CAI) in the USA. Either of these refers to on-line direct interactive learning experience through the computer. It

can be done in one of the many different modes of instruction, some of which are:

- Tutorial Mode
- Drill and Practice Mode
- Simulation Mode
- Discovery Mode
- Gaming Mode

In the Tutorial mode, information is presented in small units followed by a question. The student's response is analysed by the computer and an appropriate feedback is provided. This is similar to programmed instruction.

In the Drill and Practice mode, the learner is provided with a number of graded examples on the concepts and principles learnt earlier. The idea is to develop proficiency and fluency through doing. All the correct responses are reinforced and the incorrect responses are diagnosed and corrected. The computer continues the drill until mastery is achieved by the learner.

In the Simulation mode, the learner is presented with scaled-down simulated situations bearing correspondence with the real situations. Simulations are made to avoid risk, save money and conserve time. Simulation of an aeroplane in flight, an experiment on titration, a nuclear reaction, collision of two bodies, etc. are good examples of the simulation mode.

In the Discovery mode, the inductive approach to teaching and learning is followed. The learner is encouraged to proceed through trial and error approach, i.e., by solving a given problem, realising, where and how he/she went wrong, trying again and finally solving the complex problem.

In the Gaming mode, the learner is engaged in playing opposite the computer or opposite another learner. The extent of learning depends upon the type of the game. Games on spellings, names of places and general knowledge are some examples of the gaming mode.