Computer Assisted Instructions-855 for M.Ed.

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Let enlist our objectives

- Understanding/sharing the basics of CAI
- Exploring the role/importance of CAI in education
- Types of CAI
- Explanation and examples of CAI
- Advantages
- Limitations
- Course book
Have you ever used CAI?

- Have you not used computer for learning?
- Have you not used computer for teaching?
- Have you learned typing using any software?
- Have you listened any lecture for English
- If yes
- Then this is all about CAI
CAI introduction

- CAI refers to the use of the computer as a tool to facilitate and improve instruction.
- An instruction is “detailed information about how something should be done or operated”, to teach or to train.
- A CAI program can be used in following ways to improve instruction:
  - drill and practice, Simulation
  - problem solving approaches to present topics
  - They test the student's understanding.
Computer Assisted Instruction

- Use of computer in education is referred by many names such as
  - Computer Assisted Instruction (CAI)
  - Computer Aided Instruction (CAI)
  - Computer Assisted Learning (CAL)
  - Computer Based Education (CBE)
  - Computer Based Instruction (CBI)
  - Computer Managed Instruction (CMI)
- Web Based Training/Learning/Instruction
Computer Assisted Instruction

- Computer-based education (CBE) and computer-based instruction (CBI) are the broadest terms and can refer to virtually any kind of computer use in educational settings.
- Computer-assisted instruction (CAI) Computer Aided Instruction (CAI) is a narrower term and most often refers to drill-and-practice, tutorial, or simulation activities.
Computer Assisted Instruction

- Computer-managed instruction (CMI) instruction is an **instructional strategy** whereby the computer is used to provide learning objectives, learning resources, record keeping, progress tracking, and assessment of learner performance.

- Computer based tools and applications are used to **assist the teacher or school administrator** in the management of the learner and instructional process.
Computer Assisted Instruction - Def

- A self-learning technique, usually offline/online, involving interaction of the student with programmed instructional materials.
- Computer-assisted instruction (CAI) is an interactive instructional technique whereby a computer is used to present the instructional material and monitor the learning that takes place.
Computer Assisted Instruction - Def

- CAI uses a combination of text, graphics, sound and video in enhancing the learning process.
- The computer has many purposes in the classroom, and it can be utilized to help a student in all areas of the curriculum.
  - Searching content
  - Homework assignments
Typical CAI provides

- text or multimedia content
- multiple-choice questions
- problems
- immediate feedback
- notes on incorrect responses
- summarizes students' performance
- exercises for practice
- Worksheets and tests.
Types of CAI

- **Drill-and-practice** Drill and practice provide opportunities or students to repeatedly practice the skills that have previously been presented and that further practice is necessary for mastery. **Online Exam and testing center**

- **Tutorial** Tutorial activity includes both the presentation of information and its extension into different forms of work, including drill and practice, games and simulation... **Typing Master, English GURU, Math Master**
Types of CAI

- **Discovery** approach provides a large database of information specific to a course or content area and challenges the learner to analyze, compare, infer and evaluate based on their explorations of the data...... *Research oriented software.*

- **Problem Solving** This approach helps children develop specific problem solving skills and strategies...... *Logical games, strategy games*
Advantages of CAI

- one-to-one interaction
- great motivator
- freedom to experiment with different options
- instantaneous response/immediate feedback to the answers elicited
- Self pacing - allow students to proceed at their own pace
- Helps teacher can devote more time to individual students
Advantages of CAI

- Privacy helps the shy and slow learner to learn
- Individual attention
- Learn more and more rapidly
- Multimedia helps to understand difficult concepts through multi sensory approach
- Self directed learning – students can decide when, where, and what to learn
Limitations

• Do you agree with me that “No system can replace teacher and classroom”?

• Yes
  ◦ may feel overwhelmed by the information and resources available
  ◦ over use of multimedia may divert the attention from the content
  ◦ Teachers training required to use
  ◦ non availability of good CAI packages
  ◦ lack of infrastructure in Pakistan
Tools and packages

- Computer graphics (decade use, hand tools)
  - Computer Aided Design (CAD)
  - Computer Aided Manufacturing (CAM)
  - Digitizer, light Pen, Touch Screen, Scanner
  - Plotter (maps, bar charts, engineering drawings)

- Computer adopting to logical requirement (why and why not)

- Self learning (ignored individual learning at own pace with immediate feedback)
What we try to learn today?

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Any Question please......
I HOPE YOU WOULD HAVE ENJOYED TODAY’S CLASS
Thank you

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