# COMPUTER ASSISTED INSTRUCTION

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## INTRODUCTION

The use of computers in education started in the 1960s. With the advent of convenient microcomputers in the 1970s, computer use in schools has become widespread from **primary** education through the university level and even in some preschool programs. Instructional computers are basically used in one of two ways: either they provide a straightforward presentation of data or they fill a tutorial role in which the student is tested on comprehension.

#### COMPUETR ASSISTED INSTRUCTION(CAI)

- <u>A self-learning technique</u>, involving interaction of the student with programmed instructional materials.
- Computer-assisted instruction (CAI) is an <u>interactive</u> <u>instructional technique</u> whereby a computer is used to present the instructional material and monitor the learning that takes place.
- It <u>enhances the learning process</u> with using text, graphics , sound and video.

#### COMPUETR ASSISTED INSTRUCTION(CAI)

• CAI refers to the use of the <u>computer as a</u> <u>tool</u> to facilitate and improve instruction.

• CAI programs use tutorials, drill and practice, simulation, and problem solving approaches to present topics, and they <u>test</u> the student's understanding.

Types of Computer Assisted Instruction

- 1. <u>Drill-and-practice</u> : Repeatedly practice of the skills for mastery
- 2. <u>Tutorial</u> activity includes both the presentation of information and its extension into different forms of work.
- 3. <u>Games</u> creates a contest to achieve the highest score .

Types of Computer Assisted Instruction

- 4. <u>Simulation</u> : provide an approximation of reality .
- 5. <u>Discovery</u> : Enable the learner to analyze, compare, infer and evaluate the data.
- 6. <u>Problem Solving</u> : helps children to develop specific problem solving skills and strategies.

#### Non-Computer-Assisted Instruction Environment

**Computer-Assisted Instruction Environment** 

## CAI PROVIDES :-

- 1. text or multimedia content
- 2. multiple-choice questions
- 3. problems
- 4. immediate feedback
- 5. notes on incorrect responses
- 6. summarizes students' performance
- 7. exercises for practice
- 8. Worksheets and tests.

### ADVANTAGES OF CAI

- one-to-one interaction
- great motivator
- freedom to experiment with different options
- Individual attention and immediate feedback
- Helps teacher can devote more time to individual students

#### ADVANTAGES OF CAI

- Self pacing allow students to proceed at their own pace
- Privacy helps the shy and slow learner to learns

### LIMITATIONS OF CAI

- may feel overwhelmed by the information and resources available
- over use of multimedia may divert the attention from the content
- learning becomes too mechanical
- non availability of good CAI packages
- lack of infrastructure

#### HOW CAI PROCESSED

INSTRUCTI

ONS

POST-

**TEST** 

RESEARCH

DEVELOPM

**ENT** 

**PRE-TEST** 

COMPARISON BETWEEN PRE AND POST -TEST



## **THANKING YOU**