ED 102 Assignment 7

Computer-Assisted Instruction (CAI)

Learning with computers occurs when computer technologies are used as tools to support teaching and learning. Learning from computers is associated with Computer-assisted instruction, CAI, whereas learning with computers is associated with the use of computer and software resources that are not necessarily instructional (i.e., e-mail, web browsers, word-processing software, presentation software, etc.) as cognitive tools to support learning activities in active learning environments.

CAI occurs when an instructional program is delivered to a learner using a computer. CAI is sometimes considered a type of computer-based instruction (CBI), which refers to any form of computer use in an educational setting, including instructional programs, tutorials, simulations, instructional management, supplementary exercises, programming, and productivity software applications such as word processing and spreadsheets. CAI and CBI are often synonymous, the former sometimes in a more restrictive sense to refer to drill-and-practice, tutorial, or simulation software used for stand-alone learning activities or as supplements to teacher-directed instruction.

Eg. If the student have no time to attempt the class, he were study the teacher’s lecture by computer stand-alone. In Myanmar education can’t start CAI because poor knowledge in computer and the used of Internet.

CAI may also describe the instructional program itself or the delivery of the instructional program by a computer. CAI is sometimes known as educational software and courseware when packaged as a comprehensive curriculum with management and assessment features. In a typical CAI session the student sits in front of a computer, which presents information on the screen. The student reacts to the information presented by working with the mouse and/or keyboard.

In our education system, if we use the CAI, it is quite difficult .First we need to train computer skill both teachers and students, then also need computer room or multi media room in school, and students haven’t personal computer.

The pace of instruction may be controlled by the student, who may have control over the sequence of instruction. At certain points in the program, the student responds to questions posed, and the program notifies the student whether the response was correct or incorrect. In more complex CAI settings, the program may also keep track of the number of correct and incorrect responses and adapt the sequence of instruction according to performance throughout the program.

The primary advantages of CAI are that it allows learners to work at their own pace, controls the flow or sequence of instruction, and provides immediate feedback. More sophisticated forms of CAI adapt instruction to individual learner needs by varying lesson content, instructional sequence, and level of difficulty for each lesson as well as revising the types of feedback. These revisions may be accomplished while the learner is completing a lesson.

Programmed instruction (PI) never achieved a high degree of popularity in schools, possibly because it was monotonous and did not fit well with group-oriented, fixed- schedule school settings. Early efforts to use computers in instruction, however, emerged from the guiding principles of PI. In its early forms CAI was an integration of computer technology and the PI movement.

I think about the CAI and PI those are reliable for student who are really need to study and do the practice according the instruction. So CAI and PI are difficult to evaluate. If students learn CAI and PI, we carefully assess for that student. Among the original CAI models to emerge was a project to develop a tutorial system for instruction in elementary mathematics, language arts, and reading.

I think CIA is used supplemental providing for our education system because we meet students who are can’t attend school or class for their health or their parent problem. At that time we teach them CAI and PL methods. These methods can also help students and teacher contact. The effectiveness and efficiency of computer use and on the effects of CAI on academic achievement as well as specific academic areas, high-level thinking skills, learning rates, learning retention, locus of control, and motivation. The research indicated that the use of CAI as a supplement to teacher-directed in-class instruction produced superior achievement and retention effects for students of different ages and abilities in different curricular areas.

These comparisons indicated that CAI was more effective with lower-achieving students than with higher-achieving ones. The effectiveness of CAI to standard methods of instruction, however, provided inconclusive results. Meta-analytic methods were used to compare the results from a number of CAI studies and concluded that the use of CAI produced higher achievement.

A mastery level student that indicate learning rates were faster with CAI. The attitudes about CAI, and CAI often produced positive student and teacher attitudes. In many studies teachers and learners often perceived CAI as appealing and having a positive impact on learning. While cost considerations were not a main focus of CAI research, some studies indicated that CAI was more cost-effective than some instructional methods such as tutoring and at least as cost- effective as classroom instruction.

CAI indicated that computer technology was of more educational benefit when its use was incorporated into the classroom practices of teachers and integrated with, and essential to the curriculum. The primary value of CAI may be found in its potential to motivate students, increase access, and reduce the time needed to accomplish a given set of objectives. Learning from computers occurs when the computer is the medium for the delivery of content through an instructional program.