THE NEED OF COMPUTR ASSISTED INSTRUCTION IN B.Ed. & M.Ed. COURSE

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Abstract

The teacher is the builder of nation. He develops the leader, scientist, engineers, doctors and various other responsible officer of new generation in his classroom. So it is necessary for him to know new technology & adopt it for effective teaching CAI is one of the chief technologies which can be used for effective teaching. Computer Assisted instruction is very useful for the students of B.Ed. & M.Ed. courses. It helps our pupil teacher's to motivate the learner.CAI can successfully use to teach social skills to teens enrolled in a behavior modification program, Helpful in improving academic performance of pupil teachers. It is effective in science classroom settings. CAI technique is one of the art of teaching to have a psychological effect to get better achievements in academic field.CAI is to be effective; educators should match the CAI type to the intended learning goals. Tutorial CAI should be used for teaching basic concepts and simulation CAI would be better suited to teaching the application of concepts. CAI is effective in improving performance in writing expressions for division word problems, increasing awareness of a tendency to divide by the smaller number, and helping teachers explicitly recognize and correct their misconception about the relative size of the dividend and the divisor. Student's7 pupil teacher both become self-confident, joyful and the subject became more meaningful with CAI. It is a tool that can help students view learning as a constructive process and use simulations to draw students' attention.

Keywords: *Computer Assisted Learning*

Introduction

The present era is of technology and information, technology has not only enriched the human life but it has grabbed the human mind too. In the field of education "computer" is the chief invention, which has changed and developed the human being and continuously contributing in the field of education. There are five revolution held in the field of education. The first revolution was the oral teaching method; the second revolution was the use of leaves and holders for study& writing. The third revolution was of typewriter or printing machine.

In the fourth revolution educational television was invented for educational purpose and in fifth revolution computer is explored for educational purposes, which made teaching learning process easy, comprehensive & effective.

Computers have come to stay not only in the field of science technology, commerce and industries, tourism and transport but also in the field of education. This has happened mainly because of the tremendous abilities which computer has. M.N.K Bose (2009) has described some pedagogic qualities of computer in his research article "Computer in distance education", that the computer:

- Motivate the learner
- Interacts with learner
- Stimulates situations which are difficult and dangerous
- Provides instant feedback

In earlier, the microcomputer was first introduced in American classroom. In 1970's many schools began acquiring Microcomputer& using them for instruction, drill& practice, record keeping and other application.

Fortunately a great deal of researches has been conducted during 1970's to1990 on the effect of computer use on student's achievements, attitude and other valuable variables such as learning rate. This area of research covers a wide range of topics from computerized learning. Activities which supplement conventional instruction to computer programming to computerized record keeping to the development of databases to writing word processors and other application.

Eny Donald(1984) had viewed about CAI, "With mounting interest in what research has shown about learning through computer Assisted Instruction analysis have recently review the CAI research for the past 20 years". **Anderson Mark Bushy** also quote after his research on CAI, "Feature of Plato, a computer Assisted Instruction learning system, prompts students mathematic achievement a literature review".

William L. Bailenger, "In computer assisted instruction (CAI) a dialogue of information can be maintained between the computer and a learner without dependence upon normal vision.

This is possible because there are several media alternatives for informal input to the learner. These alternatives include large print (visual), Braille (tactile), the OPTACON reading system(tactile) and auditory.

The criteria used to evaluate each medium for information input include the percentage of the visually handicapped population that can use the medium, the requirements for recording information, the words-per minute information transfer of the medium, and its instructional effectiveness".

The teacher is the builder of nation. He develops the leader, scientist, engineers, doctors and various other responsible officer of new generation in his classroom. So it is necessary for him to know new technology & adopt it for effective teaching CAI is one of the chief technologies which can be used for effective teaching.

Dalton and Hannafin (1986, January), in a study involving junior high students, found that CAI alone tended to be the most effective instructional delivery system compared to video alone and interactive video. In a large curriculum integration project, Lore and Chamberlain (1988) found that a CAI integrated curriculum was effective (e.g., reached a pre-established learning benchmark) when averaged over all grades. However, some grades performed at or above the benchmark while other grades performed below. Specifically, they found that grades 3, 4, 6, and 7 met or exceeded the goal level of academic achievement; grades 1, 2, 5, and 8 did not reach the goal level (p.4). Price (1989) conducted an attitude survey and observed student progress in a middle school science project where CAI was used as a tutorial and research tool. It was concluded that the use of CAI in this way encouraged an overall improvement in motivation and interest in the science research project. **Christmann,** et al. (1997) conducted a meta-analysis of the effect of CAI in secondary education for the years of 1984 to 1995. They selected only studies that were correlative, quasi-experimental, or experimental in design and concluded that CAI had a greater effect size in the 1980s than it did in the 1990s (through 1995). Their research indicated that for the 12 year period (1984 to 1995), secondary students exposed to CAI showed "higher academic achievement than 57.2% of those students exposed to traditional instruction" (p. 328).

Roberts and Madhere (1990), in a study involving elementary and junior high schools, stated that their "findings indicate marginal successes in academic gains in reading and

mathematics and an overwhelming positive student attitude toward the computer assisted medium of instruction and learning" (p. 45). In a report on the academic progress of mathematics and physics students taking CAI-based advanced placement courses (middle school through early high school), **Ravaglia, Suppes, Stillinger, and Alper** (1995) argued that such courses were shown to be effective for the targeted students. As evidence, they suggested that these students, upon completion of the CAI courses, scored especially high on Advanced Placement (AP) exams from the test years 1991-1993. **Matejczyk** (1996) implemented commercial software on creative writing and concluded that the software was a helpful tool in improving students' writing. In a study of CAI in a secondary science classroom, **Brophy (**1999) felt that the results indicated that CAI is effective in science classroom settings. Tseng (1999) found that a mathematics CAI was useful in teaching first grade students; results indicated that most students advanced in knowledge. In a similar study involving elementary students, Chang (2000) reported a significant increase in scores on a measure of academic achievement when CAI on arithmetic was used to teach addition and subtraction. Two final studies indicate that CAI can have a positive effect on skills and achievement for at risk secondary students. In the first study, **Stern and Repa** (2000) show that CAI was successfully used to teach social skills to teens enrolled in a behavior modification program. In the second study, Dunn (2002) found that at risk high school freshmen in the CAI treatment group scored significantly higher than the control group on a measure of reading comprehension.

NEED OF USING COMPUTR ASSISTED INSTRUCTION IN B.Ed. & M.Ed. COURSES

This is the century of science and technology. Technology has developed every aspect of human life. If it may introduce in education, it may be helpful in improving teaching learning process. NCTE controls B.Ed. & M.Ed. course in India. A lot of money and manpower is being put to improve the quality & standard of B.Ed. as a professional course, still a teacher teaching in school lacks essential skills, methods and new techniques. If he will get training through CAI, the educational achievement of students will be surely improved.

Therefore there is an urgent need to adopt the technology of 21st century in the field of education. This is possible through computer assisted instruction, which may be helpful for effective, purposeful and interesting teaching learning process. It is interesting to note that though Computer Assisted Instruction is a virgin field, it could lure only though researches.

Looking at the trend all the world over, it is expected that Indian researchers would go into computer education more enthusiastically. One can only hope that this field will not go un notified and many more studies would be taken up in this area. To study the efficacy of CAI, Springer (2002) studied academic performance improvements in delivering metric CAI (as a proctored tutorial) to pre service teachers and found that those individuals who received the CAI performed significantly better on a metric posttest than those students who received no instruction.

It has been assumed that different teaching styles are psychological treatment to enhance the learning attitude and achievement behavior. CAI is also a teaching device to increase the level of aspiration and motivate the students to develop the involvement of study habits. The students who come from different background and peer groups may have a competitive attitude for better achievement CAI technique is one of the art of teaching to have a psychological effect to get better achievements in academic field.

The Association for Education Communications and Technology (1977) has defined computer-assisted instruction (CAI) as a method of instruction in which the computer is used to instruct the student and where the computer contains the instruction which is designed to teach, guide, and test the student until a desired level of proficiency is attained. There has been a dramatic increase in the capabilities of computers, along with reduced cost, that has influenced an increase in the various forms of computer-delivered instruction (Brown, 2001). This increase has been seen in education as well as in other disciplines (Passerini, 2000). Throughout the 1980's and 90's computers have been generally heralded as being an effective teaching methodology **(Christmann & Badgett, 2000).** However, this "heralding" may still lack adequate research. Coffland (1999), in discussing the status of technology use in mathematics education, noted there is ample justification for research into how computers are used in education. In their focus on the status of research on the efficacy of CAI, **Christmann and Badgett (2000)** also suggest a need for further research by arguing that, "despite the accolades heralding CAI as the effective teaching methodology, there is still no documented evidence verifying its perceived superiority" (p. 92). While the authors of this current paper also feel more research is needed concerning the effectiveness of computers in education, the research below is felt to adequately show that CAI can be an effective mode of instruction in the education environment and is not offered to "prove" the superiority of CAI **(Christmann & Badgett, 2000; Christmann, Badgett, & Lucking, 1997).**

UTILITY OF COMPUTR ASSISTED INSTRUCTION IN B.Ed. & M.Ed. COURSES

Computer Assisted instruction is very useful for the students of B.Ed. & M.Ed. courses. It helps our pupil teacher's to -

- Motivate the learner.
- Interacts with learner.
- Stimulates situations which are difficult and dangerous.
- Provides instant feedback.
- To prepare lesson plans.
- To make topic interesting & effective.
- CAI is designed to teach, guide, and test the student until a desired level of proficiency is attained.
- CAI can be used as a tutorial and research tool. It is concluded that the use of CAI in this way encouraged an overall improvement in motivation and interest in the science research project.
- CAI is also a teaching device to increase the level of aspiration of the students to develop the involvement of study habits.
- Maintained a dialogue of information between the computer and a teacher without dependence upon normal vision.
- CAI can successfully use to teach social skills to teens enrolled in a behavior modification program.
- Helpful in improving academic performance of pupil teachers.
- CAI is effective in science classroom settings.
- CAI technique is one of the art of teaching to have a psychological effect to get better achievements in academic field.
- CAI is to be effective; educators should match the CAI type to the intended learning goals.
- Tutorial CAI should be used for teaching basic concepts and simulation CAI would be better suited to teaching the application of concepts.
- CAI is effective in improving performance in writing expressions for division word problems, increasing awareness of a tendency to divide by the smaller number, and helping teachers explicitly recognize and correct their misconception about the relative size of the dividend and the divisor.

- Student's7 pupil teacher both become self-confident, joyful and the subject became more meaningful with CAI.
- It is a tool that can help students view learning as a constructive process and use simulations to draw students' attention.
- It provides a supportive environment that is rich in resources, aids exploration, creates an atmosphere in which ideas can be expressed freely, and provides encouragement when students make an effort to understand concepts.

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