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COMPUTER AIDED INSTRUCTION: AN EFFECTIVE STRATEGY TO ENHANCE LIFE SKILLS EDUCATION OF TEACHER TRAINEES

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ABSTRACT :

This study evaluated the effectiveness of Computer aided instruction on B.Ed. teacher trainees in life skills education. A quasi experimental design was used. Pretest posttest experimental and control group design was used for the study. Purposive technique was used to select the samples. The total sample size was 80.40 in the experimental group and 40 in the control group. Ravens standard progressive matrices was used to equate the group on intelligence. Achievement test on life skills education was used as pretest and posttest. An opinionnaire was used to

collect perceptions of experimental group teacher trainees regarding computer aided instruction on life skills education. CAI method of teaching life skills education was more effective than traditional instructional method.

KEYWORDS : *effectiveness, experimental, control, life skills education.*

INTRODUCTION
Use of technology in education

Computer has a significant role in every walk of life today including education. IT and computers are today part of life, and we cannot imagine a simple day without computer today. Computer aided instruction is the use of computer in implementing instructions. It is a use of hardware and software. Recent advances in technology affects every field of life and education also affects by it. Technological advances makes life easier and better, and same can be said with education. Technology use in education makes life better and easier .Use of computer technology in education not only makes it easily accessible but we can learn by it according to our need and requirement. Computer aided instruction is such type of instruction by which any student can learn according to their need and desire. It is self-regulated method by which we can learn any time at any place without time and space boundaries.

Computer technology in teacher education

Information and communication technologies(ICT) that are becoming increasingly pervasive in societies around the world are also reaching schools and colleges .With the numerous global advancements in ICT it is essential that educators have a thorough working knowledge of that media and their influence on

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the performance and engagement of their students. In this technology connected world, one cannot live in isolation so needs hard and soft skills both in sufficient amount to work confidently, reliably, and responsibly.

It is very important for teachers that they should know about the methods of recent technological uses of computers in education. Teachers can represent easily the videos of controversial issues like safe sex methods etc. while discussing the topic of HIV or health related topics. Like the use of computers in academic subjects, life skills also can be taught with the help of technology. One most important benefit of computers is that by CAI method self-learning is possible. So a student can learn life skills related education any time when possible. New technology is evolving in such a rapid rate that if teachers are not aware of these technological innovation, they cannot prepare the globally competitive future citizens. Infusion of technology in teacher education programs is the need of the hour, without which growing of students is not possible.

MATERIAL AND METHODS

Experimental method was used in this study. Pretest posttest experimental and control group design was used. The total sample size was 80. 40 in the experimental group and 40 in the control group. Purposive sampling technique was used for the study. Life skills education achievement test was used to know the level of achievement in life skills education.

Group	Pre test	Intervention	Post test
Experimental group	O1	X	O2
Control group	O1		O2

The dependent variable is achievement in life skills education.
The independent variable is computer aided instruction method and traditional teaching method.
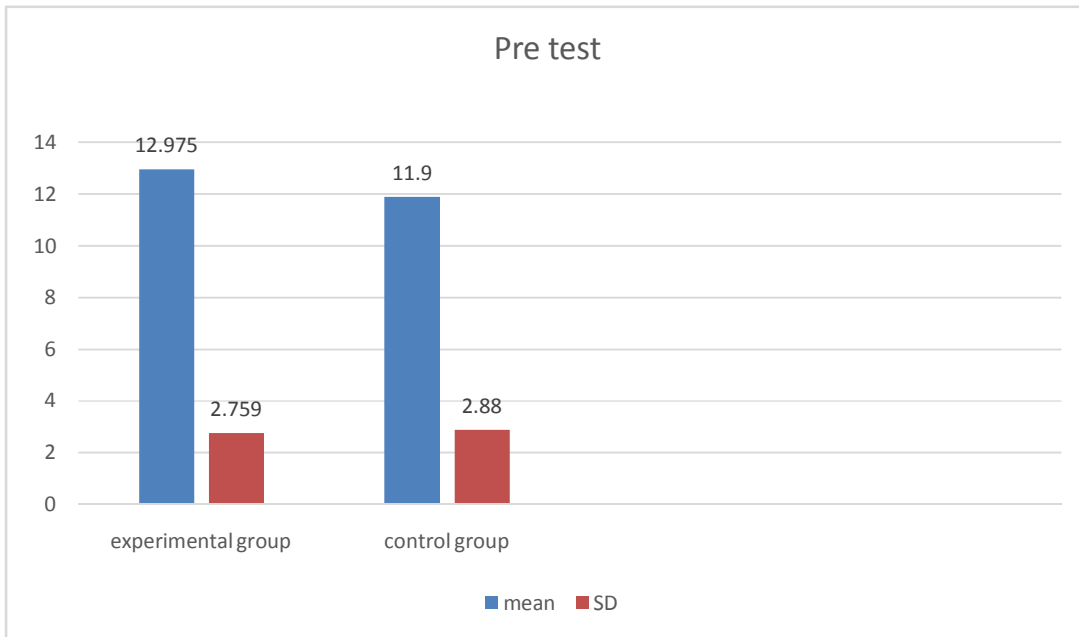
RESULTS AND DISCUSSIONS

Table 1 showing Result of t-test for the mean pre test scores of the teacher trainees in the experimental and control group

Group	No of trainees	Mean	Standard deviation	t- value
Experimental group	40	12.975	2.759	0.092*
Control group	40	11.9	2.88	

*not significant at .01 level.

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Graph showing mean and standard deviation of pre test scores between experimental and control group

Table 2 showing Result of t-test for the mean post test scores of the teacher trainees in the experimental and control group

Group	No of trainees	Mean	Standard deviation	t- value
Experimental group	40	57.2	4.1952	8.7265**
Control group	40	33.575	5.420	

**significant at 0.01 level

Graph showing mean and standard deviation of post test scores between experimental and control group
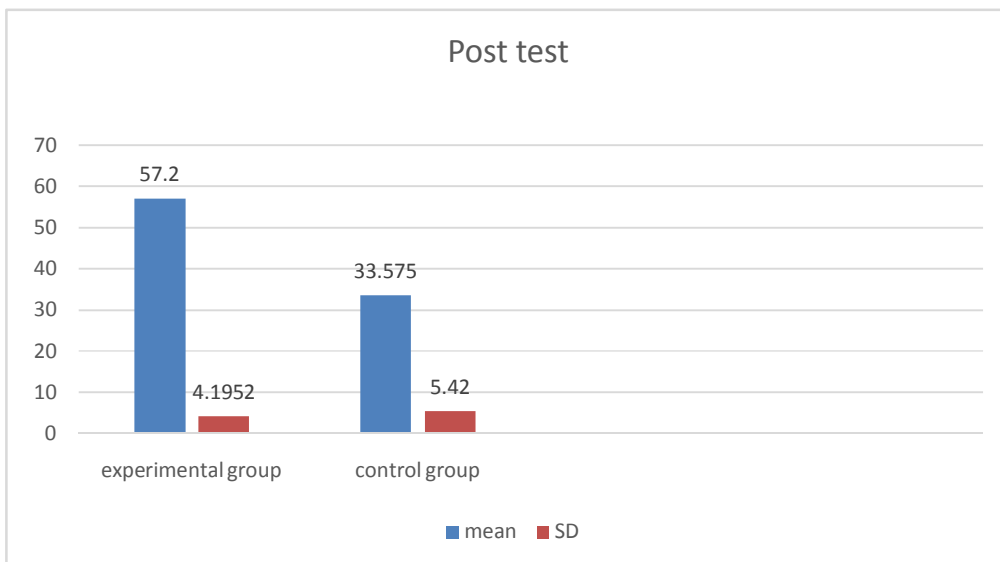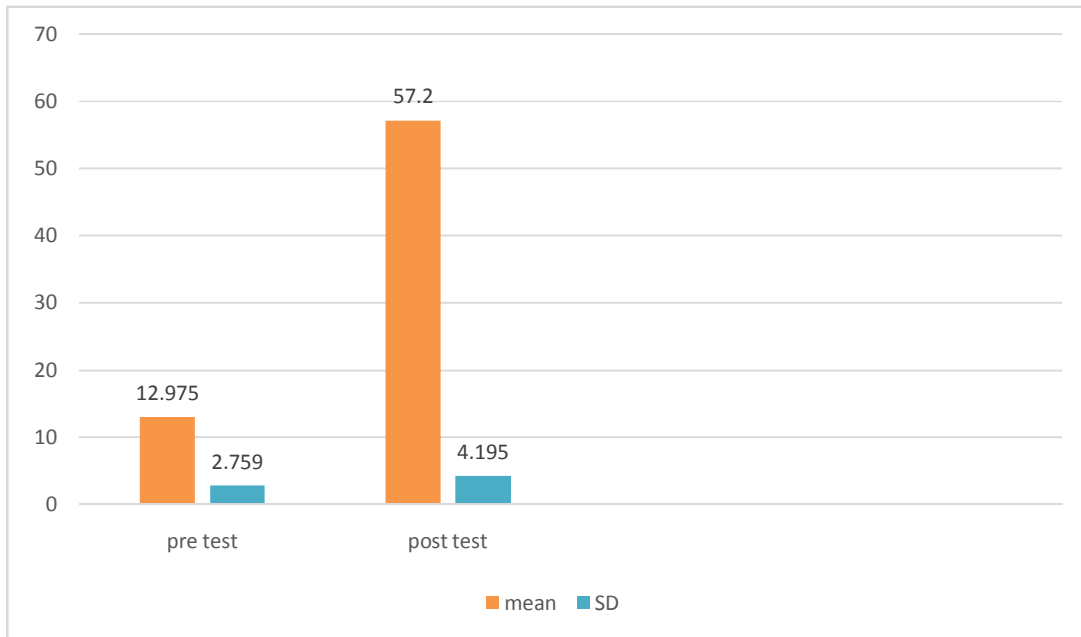

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Table 3 showing Result of t-test for the mean pre and post test scores of the teacher trainees in the experimental group

Group	No of trainees	Mean	Standard deviation	t- value
Experimental group pre test	40	12.975	2.759	3.2566**
Experimental group post test	40	57.2	4.195	

**significant at 0.01 level

Graph showing mean and standard deviation of pre test and post test scores of experimental group
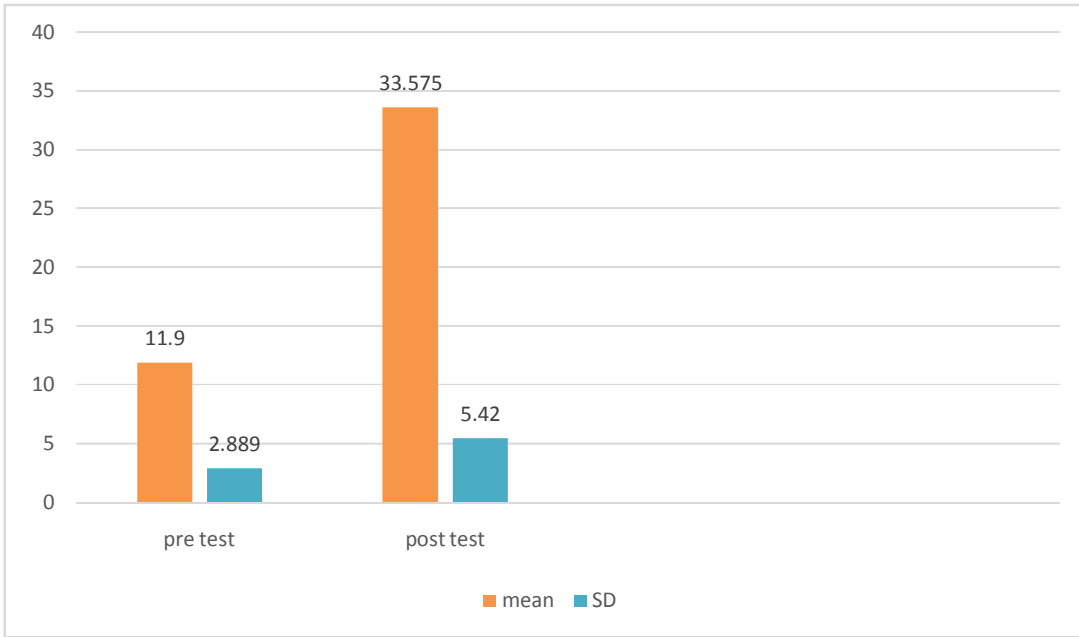

Figure

Table 4 showing Result of t-test for the mean pre and post test scores of the teacher trainees in the control group

| Group	No of trainees	Mean	Standard deviation	t- value
control group pre test	40	11.9	2.889	4.776**
Control group post test	40	33.575	5.420	

**significant at 0.01 level

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Graph showing mean and standard deviation of pre test and post test scores of control group

Details of the Comparison of mean of Pre and Post test scores of the Experimental and Control Groups is given in following Figure

Figure

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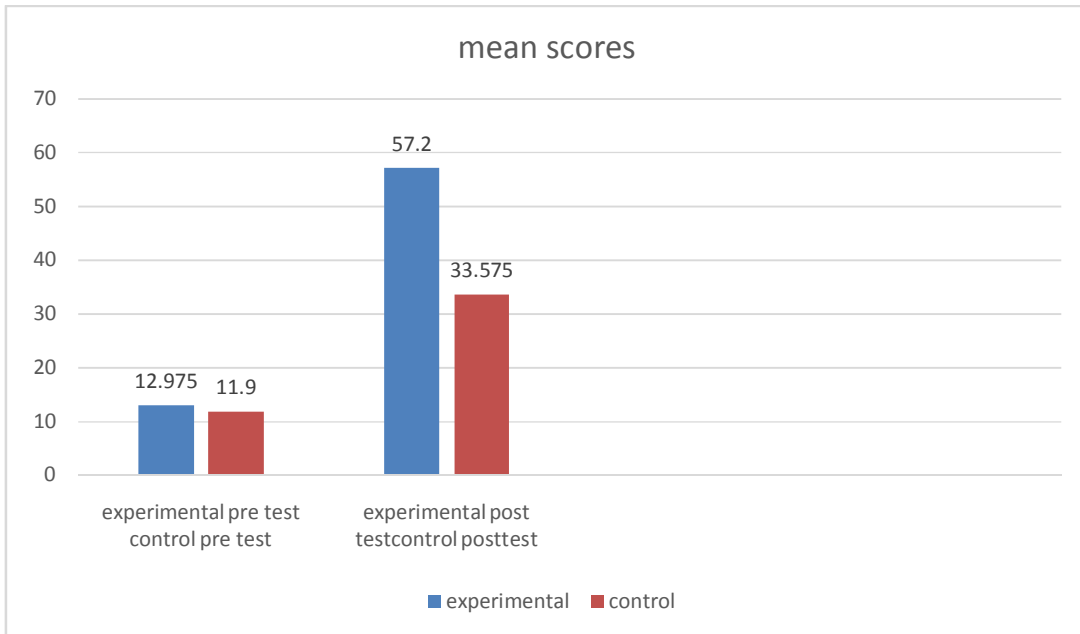
GAIN ANALYSIS

After the experiment, the gain in performance of the students in the experimental group was compared with the gain in performance of the students in the control group by testing the significance of the difference between the gain scores of the two groups. For this the mean and standard deviation of gain scores of the two groups were calculated. The difference between the mean scores of the two groups was tested for significance by finding out the t-test value . The data and the results of test of significance are given in following Table

Table 5 showing Data and Results of Test of Significance of the Difference between the Mean Gain scores of Experimental and Control Groups

Group	Mean	Standard deviation	t-test	Level of significance
Experimental	44.225	4.984	7.434**	.01
Control	21.175	6.170		

** significant at .01 level

Table 6 showing mean ,standard deviation and learning gain scores of experimental and control group

Sl no.	Control group			Experimental group		
	Pre test score	Post test scores	Difference (learning gain)	Pre test scores	Post test scores	Difference (learning gain)
Total ∑X	476	1343		519	2288	
Mean (x)	11.9	33.575	21.675	12.975	57.2	44.225
SD (α)	2.88	5.420	6.170	2.759	4.1952	4.984

Graph showing mean and learning gain of control and experimental group

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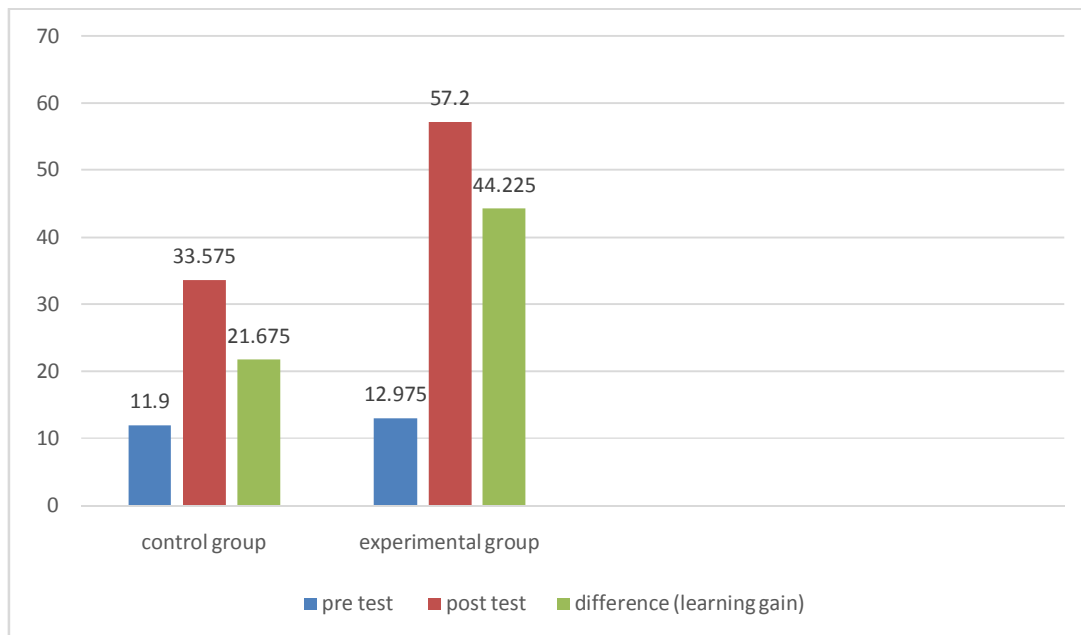
The obtained value of t test is highly significant t =7.434, at .01 level. This means that there is significant difference between the means of the gain scores of the students in experimental and control groups. Since the mean of the gain scores of the experimental group (44.225) is significantly greater than that of the control group (21.675), the students in the experimental group is better to the students in the control group in terms of their achievement in life skills education. Therefore it is concluded that Computer aided Instructional Package is more effective than the traditional Method of Instruction with respect to the total achievement of teacher trainees in life skills education.

RESULTS

Pretest performances of CG and EG are comparable but not same as sample was selected purposively. Standard deviations indicate appreciable variations in control group (2.88) as compared to the experimental group (2.759). Difference in pre and posttest performances, for both the groups is positive (21.175 for CG and 44.225 for EG). This implies that students can learn the subject by both the methods i.e. lecture and CAI material but at the same time effectiveness of the method also clearly emphasized.

FINDINGS

The findings of the present study have implications for using CAI package in teaching life skills education in teacher training institutes. The findings showed that if we use CAI as a complementary method to teach life skills education along with activity and experiential methods then it will be quite useful and will create an atmosphere where students can achieve and learn more.

CONCLUSION

Conclusion drawn by the researcher was that CAI programme has been found effective in teaching life skills to the teacher trainees.

SUGGESTIONS

Teacher educators and teachers can use these types of CAI programmes effectively in instructional process to make learning process more interesting. With the help of computer, teacher itself can develop such life skills related programmes, with the help of which they can give their students' knowledge of life skills with the help of multimedia options available. Teachers can create quizzes, graphics, videos, audios to impart knowledge of life skills to their students.

With the help of pictures, videos, quizzes we can teach them about life skills. So computer aided instruction if integrated with the content of life skills properly, proved to be an effective technique to provide life skills education.

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