

EFFECTIVENESS OF COMPUTER ASSISTED INSTRUCTION FOR LEARNING SOCIAL SCIENCE AMONG RURAL STUDENTS

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Abstract :

Learning through Computer Aided/Assisted Instructions (CAI) is a moderately new and quickly advancing idea in the scholastic held that investigates the job of Information and Communication Technologies in educating and learning measure. Considering the significance of PC in the held of instruction this pilot study was led to find out the viability of PC helped showing strategy over the instructor focused technique along with the scholastic accomplishment of sociology understudies. In this review, the randomized post test just benchmark group configuration was utilized and eleventh class ideas (Interior of the Earth, Minerals and Rocks, effect of Exogenic powers on earth covering) of sociology were chosen for the review. This pilot study has gone on for one month with the posttest of both the gatherings. After t-test investigation, information uncovered that PC helped guidance is more successful than the educator focused/conventional strategy to expand the scholarly accomplishment in sociology.

KEYWORDS : Computer Assisted Instructions, traditional method of teaching, Social science

1. INTRODUCTION

Innovation has become vital in human existence right now. Innovation demonstrates to change the less created qualities of the nations by changing their way of life and social designs. Subsequently, the information which gives showing up and the development of the innovation have been key for advancement and improvement.

In the 21st century, innovation is influencing and supporting what is being realized in schools and universities. It is additionally changing the manner in which understudies are learning. Presently it has the opportunity to moves from content centered way to deal with skill based methodology of educating with getting away from educator focused types of conveyance of content to understudy focused structures. Through innovation worked with approaches,

contemporary learning settings currently urge understudies to assume liability for their own learning.

The primary and significant piece of the innovation to upgrade the degree of conferring guidance to understudies and giving quality schooling is the utilization of Computers. An intuitive informative technique that utilizes a PC to introduce material, track learning, and direct the client to extra material which addresses the understudy's issues is called Computer-helped guidance (CAI). CAI can likewise be utilized to clarify Internet-based guidance with the utilization of pages, web release sheets, video and genuine sound, illustrations, and active applications. Furthermore, self-educating/educational projects on CD-ROM or the arising DVD, balance the gathering of accessible types of CAI. (Bucholtz, 1998)

JUSTIFICATION OF THE STUDY

Sociology shows us our own country its normal benefits, assets, and excellence; it's significance and conceivable outcomes, and furthermore its constraints, which empowers us independently or as a country to improve acclimations to our actual climate. Sociology is a science which redounds to the understudy to have positive practices identified with innovation. Along these lines one of the fundamental points of the sociology showing schooling is to raise individuals who can keep with the science age which changes and grows up without warning and can benefit from the most recent mechanical innovations in each held and to show the need of the science in every single innovative creation and advancements.

Today CAI exercises exploit further developed innovation to deliver exceptionally intuitive learning conditions, offering successful help for the securing of tuning in, talking, perusing and composing abilities. CAI specialists investigate and assess these new informative alternatives to set up a connection among schooling and PCs by finding the response to the inquiry 'How could these be best coordinated into a compelling instructional method?' Learning through Computer Aided Instructions (CAI) is a generally new and quickly developing idea in

scholastic eld that investigates the job of Information and Communication Technologies in educating and learning measure.

The specialist goes through different examination studies identified with the held of Computer-helped directions and training. A portion of the examinations are: Kulik, Bangert, and Williams (1983) investigated 48 investigations on the impact of PC put together educating with respect to optional school understudies in math and science. 39 of these investigations revealed that the understudies with PC based instructing scored preferred in nal assessments over the understudies in traditionally educated classes. The other nine investigations detailed that the understudies in expectedly showed classes scored better in nal assessments. Kumar and Kumar(2013) discovered CAI more compelling than the customary technique for instructing as far as accomplishment of pupil teachers in instructive brain research. Chaudhury (2014) directed a trial study on the 'Adequacy of Computer Assisted Instruction in Teaching Physical Sciences in Secondary School of the Rural Area of Burdwan District, West Bengal'. This review uncovered that CAI with synchronous conversation was more powerful than the conventional strategy for educating. Modi (2014) directed a review to look at the adequacy of instructing through CAI and conventional strategy for educating on the accomplishment of auxiliary school understudies and made the end that understudies educated through CAI performed better compared to the understudies instructed through customary instructing. He additionally tracked down that the exhibition of the young ladies was better compared to the young men while utilizing the CAI.

The examinations talked about above uncovered that instructing through CAI is more viable than the customary technique for educating. However, the vast majority of the examinations were done in the space of showing science and math and so forth In any case, the scientist couldn't follow adequate examinations exploring the viability of CAI in Social science. Consequently, the examiner has chosen to lead the current review with the accompanying goals

OBJECTIVES OF THE STUDY

1. To compare the effectiveness of CAI over the traditional method of teaching social science in terms of achievement of senior secondary students.
2. To compare the effectiveness of CAI on the achievement of male and female students in social science

HYPOTHESIS OF THE STUDY

The following null hypotheses were formulated for the present study:

1. There is no significant difference between the achievement of the students in social science taught through CAI and traditional method of teaching.
2. There is no significant difference between the achievement of male and female students in social science taught through CAI.

SAMPLE

The purposive sampling technique was used to select the sample. The sample of this pilot study comprised of 40 students studying in class 10th of Govt. High School, Hassan, Karnataka. The students were randomly assigned to control and experiment groups. Each group consisted of 10 male students and 10 female students.

TOOLS USED FOR THE STUDY

1. The instructional material on the topics of 'Interior of the Earth', 'Minerals & Rocks' and 'Impact of Exogenic forces on earth crust' in the form of CAI for teaching social science to 10th class.
2. Achievement test on the above topics of Social science.

STATISTICAL TECHNIQUES USED

The following statistical techniques were used to analyze the obtained data:

1. Descriptive statistics used as the mean and standard deviation to understand nature of data.

2. Inferential statistics: t-test was employed to analyze the data.

DESIGN OF THE EXPERIMENT

Control group posttest only design was used to conduct the study. Students were randomly assigned to both the groups. The schematic description of research design is as follows:

Group	Treatment	Posttest
Control (R)	O	T_c
Experimental (R)	X	T_e

Where:

R is randomization

O is treatment given to experimental group by traditional method of teaching

X is treatment given to experimental group by CAI

T_c denotes posttest scores of control group C

T_e denotes posttest scores of experimental group

PROCEDURE FOR CONDUCTING THE EXPERIMENT

Right off the bat, the specialist haphazardly appointed the understudies to both the gatherings for example Control Group and Experimental gathering. Then, at that point, the investigation was led in the second seven day stretch of April. He showed the benchmark group with the customary technique for instructing for seven days in a time of 45 minutes every day. The exploratory gathering was presented to CAI for seven days, 45 minutes every day. For keeping up with the discipline in the PC research facility the assistance of PC instructor was looked for. Following seven days of instructing to both the gatherings, the accomplishment test was controlled to both the gatherings following a hole of two days.

All the actions were required to hide from the understudies that they are under try and the gathering to which they have a place just as no sharing of data happened starting with one gathering then onto the next.

RESULTS

SIGNIFICANCE OF DIFFERENCE BETWEEN MEAN ACHIEVEMENT SCORES OF CONTROL AND EXPERIMENTAL GROUPS ON ACHIEVEMENT TEST IN SOCIAL SCIENCE

The hypothesis H1 i.e. 'There is no significant difference between the achievement of the students taught through CAI and traditional method of teaching' was analyzed on the basis of the design. Table 1.1 indicates the mean, standard deviation and t-values for control and experimental groups.

Table 1.1

Group	Number	Mean	Standard Deviation	't' Value	Remark
Control	20	32.05	3.10	7.52	Significant
Experimental	20	37.70	1.30		

As displayed in Table 1.1 that there is a contrast between the mean accomplishment scores of the understudies instructed through CAI and customary strategies. The mean worth of control bunch in 32.05 and the standard deviation is 3.10 while the mean worth of the test bunch is 37.70 and the standard deviation is 1.30. So the mean accomplishment score of the test bunch is more than that of the benchmark group; which implies the exhibition of the trial bunch is superior to the benchmark group.

The determined t-an incentive for the said bunches for example 7.52 is more than the organized worth 3.56 at 0.05 degree of significance. Hence theory H1 that 'There is no significant distinction between the accomplishment of the understudies instructed through CAI and conventional strategy for educating' is dismissed. As such, we can say that there is a significant contrast in the accomplishment of understudies in the two gatherings (control bunch and test bunch). So it very well may be presumed that CAI is more successful than the customary technique for showing sociology to senior optional understudies

SIGNIFICANCE OF DIFFERENCE BETWEEN MEAN ACHIEVEMENT SCORES OF MALE AND FEMALE STUDENTS TAUGHT THROUGH CAI

The hypothesis H2 i.e. 'There is no significant difference between the achievement of male and female in social science students taught through CAI' was analyzed on the basis of the design. Table 1.2 indicates the mean score, standard deviation and t-values for the achievement of male and female students.

Table 1.2

Group	Number	Mean	Standard Deviation	't' Value	Remark
Boys	10	37.30	1.33	1.41	Not Significant
Girls	10	38.10	1.20		

Table 1.2 portrays that the mean accomplishment score of male understudies is 37.30 and the standard deviation is 1.33 while the mean accomplishment score of the female understudy is 38.10 and the standard deviation is 1.20. This demonstrates that the exhibition of female understudies is somewhat better compared to the male understudies in sociology while instructing with CAI. Be that as it may, the calculated 't' esteem is 1.41 which isn't significant at the 0.05 and 0.01 degree of significance. So the defined invalid theory H2 for example 'There is no significant distinction between the accomplishment of male and female in sociology understudies educated through CAI' is acknowledged. All in all, we can say that showing sociology through CAI is similarly powerful for male and female understudies.

DISCUSSION OF RESULTS

The consequences of the review are additionally upheld by the investigations led by Worthen, Van Dusen and Sailor (1994), Christmann, et.al. (1997), Daniel (1999), Soe, Koki and Chang (2003), Traynor (2003), Joy and Shaiju (2004) and Sharma and Sharma (2013). This load of investigations likewise discovered that CAI is more successful than the customary technique for educating

MAIN FINDINGS

On the basis of analysis of data the main findings of this pilot study are:

1. There is a significant difference between the mean gain scores of the Control group taught through the traditional method and the Experimental group taught through CAI.
2. CAI was found more effective than the traditional method of teaching social science in terms of the achievement of the 10th class.
3. There is no difference in the achievement of male and female students taught through CAI.
4. CAI was found equally effective for teaching social science to male and female students.

EDUCATIONAL IMPLICATIONS

The finding of the current review shows that the learning modules created higher learning result on understudy accomplishment in the subject Social science since it is a self-educational learning material, it gives a chance to self-learning and self-assessment. Various Computer Assisted Instructions learning modules can be ready in various subjects. The instructor should be given adequate preparing and consolation in setting up the CAI module. Hypothetical and viable parts of CAI ought to be remembered for pre service and in-administration preparing program for the educator.

REFERENCES

1. Bucholtz, C. (1998). New tricks for teaching: software, web-based solutions help growing pool of technicians get up to speed. *Telephony*, 234 (11), 50.
2. Chaudhury, B.R. (2014). The effectiveness of computer assisted instruction in teaching physical sciences in secondary school of the rural area of burdwan district, West Bengal. *Indian Streams Research Journal*, 3 (2).
3. Christman, E.P., Badgett, J.L., & Lucking, R. (1997). The effectiveness of micro computer-based computer-assisted instruction on differing subject area: A Statistical deduction. *Journal of Education Computing Research*, 16 (3), 281-296.

4. Daniel, J.I. (1999). Computer aided instruction on the world wide web: The third generation. *Journal of Economic Education*. 30 (2), 163-170. University of Delaware.
5. Joy, B.H.H. and Shaiju, S.L. (2004). Development of computer assisted teaching material in history at higher secondary level and its effectiveness. *Indian Educational Abstract*, 5 (1&2), 26-27.
6. Kulik, Bangert and Williams (1983). Effectiveness of computer-based education in elementary schools. *Journals of Computer in Human Behavior*, 1, 59-74.
7. Kumar, S. and Kumar, S. (2013). Effect of computer aided instruction (CAI) in educational psychology on achievement of student-teachers. *BCM Research Colloquium*, 1 (2), 3-6.
8. Modi , B.A. (2014). A study of effectiveness of teaching through computer aided instruction (CAI) and traditional teaching method. *Indian Streams Research Journal*, 4 (2). DOI : 10.9780/22307850.
9. Sharma, A. & Sharma, R. (2013). A study of effectiveness of computer assisted instruction, programme instruction and interactive instruction on students' performance. *Journal of Educational Planning and Administration*, XXVII (2), 157-168.
10. Soe, K., Koki, S., and Chang, J. M. (2003). Effect of computer assisted instructions (CAI) on reading achievement: a meta analysis. Hawaii: Pacic Resources for Education and Learning. Retrieved March 26, 2008, from www.prel.org.
11. Traynor, P.L. (2003). Effects of computer-assisted-instruction on different learners. *Journal of Instructional Psychology*. 30 (2), 137-143
12. Worthen, B. R., Van Dusen, L. M., & Sailor, P. J. (1994). A comparative study of the impact of integrated learning systems on students' time-on-task. *International Journal of Educational Research*, 21, 25-37.