

## **To develop CAI package as an e-learning authorising tool for student trainees of B.Ed. for the unit statistical methods**

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**Abstract:** It is really very difficult for an average student to imagine different faces of formula & significant meaning of various statistical terms. One group was taught with conventional teaching method and the other with computer assisted instruction package. As this was the first attempt in deploying CAI in teaching computer concepts in the college, it was primarily employed as educational means of teaching with CAI . This project reports an experience and a study of implementing computer assisted instructional method and the effect it has on students' performance in the course.

**Introduction:** Major characteristic of Computer Aided Instruction CAI is to create a learning environment for making the learner to learn. It is really very difficult for an average student to imagine different faces of formula & significant meaning of various statistical terms. Proper visualization and memory skill is needed for comprehension. Hence, there is a need to develop some new strategy, which will be a channel between teachers and learners of educational statistics for an easy flow of information & practical application in evaluation procedure. Looking to these characteristics, the investigators decided to develop and try out CAI Package for B.Ed students in Educational Statistics.

**Need and Importance of the Study:** It is essential for every teacher trainee to conduct a classroom evaluation and research during her in service teaching practice. Some of the student trainees have not much background of statistics. It seems essential to develop some strategy permitting their academic needs in learning unit 10 of paper 4 of Bed Syllabus that is 'statistical methods and interpretation of sources' so that they may learn at least fundamental of statistics in education. E learning is not only the CAI, but also it encompasses the use of CD-ROM thus CAI may become an effective strategy for teaching and learning statistics in education.

### **Objectives of the study**

1. To diagnose difficulties in learning statistical methods in education for student trainees of B.Ed course.
2. To test the achievement of B.Ed student trainees in solving problems based on statistical methods after using traditional method of teaching.
3. To test the achievement of B.Ed student trainees in solving problems based on statistical methods after using CAI.
4. To compare the effectiveness of TM and CAI strategy on B.Ed. student trainees in learning statistical methods.

## **HYPOTHESIS**

There is no significant difference in the level of achievement of B.Ed student trainees using traditional methods (TM) and computer aided instruction CAI.

## **RESEARCH DESIGN AND METHODOLOGY**

The research design used for the study will be One Group Pre-test Post-test Design. The dependant variable will be interest and use of strategies. The independent variable will be achievement of B Ed student trainee's. CAI will act as an E learning authoring tool which will enhance and improve the achievement of B ED student trainees in statistical methods.

**Sample:** A sample of 90 B. Ed. student teachers from Tilak College of Education, Pune were selected as a sample for study.

**Methodology:** This is an experimental research on B.Ed student trainees group using TM and CAI. The effectiveness of CAI over TM will be assessed to make comparative study between the CAI and TM. An achievement test was given to B.Ed. student trainees as pre-test. The effectiveness of CAI strategy on achievement of B Ed student trainees was found out by the same test as post-test.

**CAI software package:** The Steps followed in Developing An Educational CD- ROM

As CAI Package were as follow:

**Selection of the Content:** The content was Selected with reference to the B. Ed. Curriculum. The investigator has designed and developed a specific computer software in CD format as CAI package for statistical methods for student trainees of B.Ed course for the content of unit statistical method and interpretation of sources of B. ED syllabus. Measures of Central Tendency are main focus of this CAI Package.

**Scripting For CAI As an educational CD-ROM:** After Deciding content to include in CD - ROM, the investigator referred numerous books and collected content For an educational CD - ROM The investigator classified the main content into various subtopics for making it logically sequenced. To ensure that the content was understood well and for the purpose of self evaluation, small tests were prepared after each topic and sub topic.

**Designing:** Having completed scripting of the content the organized frames were converted into the electronic format. Linking examples, questions to practice for examination , drilling exercise, facility to makes notes, summary of the topics and subtopics of the content to help in remembering the content easily; these are features from design point of view.

**Summary:** This is an experimental research designed with a view to compare the effectiveness of CAI strategy with TM. There were 4 objectives framed & hypothesis designed accordingly. The data was collected & tabulated in such a way that its analysis would help for statistical analysis.

## **Conclusion:**

The investigator analyzed the learner performance on achievement test for both the group twice as pre test and post test. It was found that difference between pretest of both the groups was not significant but it was significant for post test of both the groups.

From the statistical analysis the result found that the overall impact of CAI is more. Thus it was clear that Both CAI and TM were effective in enhancing the level of knowledge and comprehension of Educational statistics.

## **Recommendations for further research:**

Such CAI can be developed and tried out for other topics in Educational Statistics. CAI can be effectively developed and applied for other subjects also. Effectiveness of CAI strategy can be assessed if it is combined with Group Discussion.

## **Outcomes of the Research:**

Learning is phenomenon which requires individual guidance, personnel attention, drill and overall individual efforts of the learners. The classroom teaching has very little chance for the learner to be active during learning process. The CAI provides the opportunity to the learner who learns through his own efforts and also rectifies his own mistakes and maintains his own speed of learning.

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