

# Effectiveness of Computer Assisted Instruction and Team Teaching on Scientific Attitude and Achievement in Science of Secondary School Students.

## Abstract

The existing empirical studies have clearly revealed the intimate influence of instructional strategies in the creation of fertile learning environment of pupils. The future of the educational development depends directly upon the quality of intermediates incentive mind of teachers and their ability to invent and innovate. It is in this part that the function of instructional technology as regards its instructional strategies assumes vital importance. The present study is future intended to give better and appropriate equipments to the teacher to teach by effective innovative strategies, C.A.I. and Team Teaching.

The present study examines the relative effectiveness of three methods of instruction i.e. C.A.I, Team Teaching and the Traditional method in science teaching, in respect to the achievement in science and scientific attitude. The nature of the study is experimental; therefore, experimental method has been used in the present study. Three independent variables i.e. types of school, gender and method of instruction and two dependent variables i.e. scientific attitude and achievement in science are used for study. Thus, a randomized factorial design of  $2 \times 2 \times 3$  order has been used. The researcher also studied the effect of various interactional combinations.

All the IX grade students of U.P. Board affiliated self finance and aided schools of Meerut District, constituted the population for the present study. The stratified random sampling technique was used to select the sample. First of all, 4 co-ed schools of U.P. Board were selected randomly for the present study. Sample of 240 students of class IX equalized on intelligence and with the mean age of 15 years (14-16 years) were selected through the stratified random sampling technique. Finally these selected students were categorized randomly among experimental and control groups of 20 students each. We obtained total 12 groups contains 20 subject each. Out of these 12 treatments combination, 8 were experimental group and remaining 4 were control group. Now, these twelve groups were rescheduled into three groups i.e. two experimental and one control group, each consists of 80 students. One experimental group was to be given treatment as instruction through C.A.I., other was to be given treatment as teaching through team-teaching and the control group was not to be given any special treatment, but it was to be taught through traditional method.


After the successful execution of treatment, an achievement test covering all the content of related topics was applied to find out the academic achievement of all the three groups in science. As well as, to know the scientific attitude scores, a scientific attitude scale was administered on the students after the completion of experiment.

After the analysis of this obtained data, and the calculations with the help of three way ANOVA statistics, effectiveness of C.A.I. and Team Teaching in reference to achievement in science and scientific attitude was found finally.

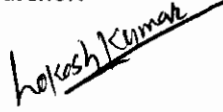
The major findings of the study indicate that experimental groups performed better than the control group in respect to scientific attitude as well as achievement in science. The students taught through team teaching achieved higher in science in comparison to other two methods of instruction at secondary level. The female students achieved more in science than the male students, what ever is the method of instruction.

The students taught through C.A.I., scored higher on scientific attitude in compare to two other teaching methods in science at secondary level. The male students gained significantly higher scientific attitude than the female students, what ever be the method of instruction. The students of self-finance schools gain significantly higher attitude than the students of govt. aided schools at secondary level.

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