



## Effectiveness of Smart Class among Secondary School's students of Ankur Vidyalay, Ahmedabad

MS. APARNA PANCHOLI  
Research Scholar,  
Rai University, Ahmedabad.  
Gujarat (India)

Guide:  
DR. AMRUT BHAI J. BHARWAD,  
Department of Education,  
Gujarat University, Ahmedabad.  
Gujarat (India)

### Abstract:

*Smart class system is making use of imagination of the student to make them understand the subject in all its pros and cons in such a way that it remains in their memory for long time to come. Student's performance increased in related subject; Students enjoy learning; Students rate of absenteeism decreased; their memory, understanding and application skills' increased. Their participation also increased. It makes Abstracts concepts concrete and difficult topic very easy to understand. By smart class method, students understand difficult topics in an interesting manner through audio-visual aids. These audio- visual aids/ images display the data and the mathematical relation of the topics for interpretation, especially of multi-dimensional cases. By these classes, Notes/Pages can automatically be saved and can be printed, emailed or even pasted into a website and It enables tutors to use multimedia resources and the internet with a whole class.*

**Keywords:** *Communication, Multimedia, Smart class, Technology*

### 1. Introduction

Technology benefited us in every aspect of life from communication to education. In this age computers play a big role in our education. We hear about smart classes every day. We all know that if a topic is understood by a visual method, it becomes more beneficial to understand to students. So the demand of using smart classes is being forcefully raised. "Smart Classes" provides education better through presentations and videos. A student can learn better through visualization. All the students may not understand the teaching methodology of a teacher, but can understand by smart classes. This can be seen in case of movies, i.e. students remember movies better than the lessons taught in classroom. This type of teaching creates an attention called as interest in them. So smart class technique is absolutely better. Such teaching helps to maintain the student's interest and focus by engaging them fully for the entire learning experience. Secondly, from the teacher's point of view, with the arrival of this digital initiative which is so practical to modern time and friendly to use, teachers can instantly evaluate/assess the learning achieved by their students in his/her class. If a concept taught is not understood then teacher can repeat with greater clarity and emphasis. He/she can identify areas of student's strength as well as weaknesses. These ultimately help the student's for better understanding. Smart classrooms are very much beneficial in teaching-learning process in a school. We make use of an appeal to audio-visual senses of students in using smart boards. These smart boards are like a computer screen which is finely handled by a teacher and also by students to provide active participation. Some of the advantages for Smart board used inside a classroom. All the renowned institutions are setting a benchmark for using this concept. Now the students are thrilled at

the concept of innovative and interactive learning process. The concept of digitized classroom has not only made the education easy but it gave the students power to enhance their performance. This paper highlights the effectiveness of smart classroom on achievement among 9<sup>th</sup> grade Science students. The present paper focuses to make an experimental study of schools having smart class room in relation to academic achievement of 9<sup>th</sup> grade Science students’.

## 2. Objectives of the study

To study the effectiveness of different Classroom techniques i.e. Smart Classroom teaching and conventional mode of teaching on achievement of 9<sup>th</sup> grade students in Science subject.

To study the academic achievement in Science of 9<sup>th</sup> grade students when taught through Smart Classroom teaching and conventional teaching with respect to gender.

## 3. Hypothesis of the study

**Ho:1** There will be no significant mean Difference between the control group and the experimental group in the pre Test.

**Ho:2** There will be no significant mean Difference between the control group and the experimental group in the Post test.

**Ho:3** There will be no significant mean difference between the boys and girls of experimental group.

## 4. Variable of the study

In the present study smart class and traditional class room environment was Independent variable while academic achievement of students in Science subject was dependent variable.

## 5. Delimitations of the study

This research was conducted only in the Ankur Vidyalay of Ahmedabad city only. The Gujarat board School of Gujarati medium was included in the study. This research was conducted only in one subject Science and only 9<sup>th</sup> grade students was taken, Only minimum multimedia tool (computer, projector) were used in the research.

## 6. Population and sample of the study

The population of the present study comprises of Gujarati medium students of Ankur Vidyaalay, Ahmedabad constitute the population.

Stratified Random sampling technique was employed by the investigator for the selection of the sample. In the present study sample of (N= 60) students of 9<sup>th</sup> grade was drawn randomly from the Ankur Vidyalay of Ahmedabad city. Out of 60 students, they were randomly divided into two groups with reference to their score of preliminary exam of Science subject.

## 7. Methodology

### 7.1 Research Design

In the present study, two equivalent group only post-test (2 X 2 factorial) experimental design was employed to study the effectiveness of smart class among 9<sup>th</sup> grade students of Ankur Vidyalaya, Ahmedabad.

### 7.2 Research Tool

Self -Made power point presentation as a smart class technique with the help of Computer and Laptop, Projector are included in the smart class. Achievement test in Science subject is being used in this study.

### 7.3 Statistical Technique

Mean, Standard deviation, t-test are being applied to analysis the data

#### 7.4 Analysis and interpretation of data

In this section researcher analysis the data concerning first objective and hypothesis of objective is as follows:

##### 7.4.1 Difference between the means of the control group and the experimental group in the pre Test

After selecting students in control and experimental group researcher first administrated the pre-test on both groups of same difficulty level, for determining that both groups are equal. The scores of students in the two groups were analyzed using t test. The results of the analyses and discussions are as stated below. Scores were analyzed using mean, standard deviation t test and the result is as shown in Table 1.

**Table 1: Significance of the difference between the means of the control group and the Experimental group in the pre Test**

Group	N	Mean	S.D.	t- value
Control	29	24.97	5.06	1.70
Experimental	31	25.69	5.27	

Table 1 revealed that students in control group have mean 24.97 and standard deviation 5.06 and students in experimental group have mean 25.69 and standard deviation 5.27. For determining the significance of difference t- test was used. t- Value was calculated 1.70. The calculated t- value was less than the table value at .05 levels. This reveals that the two groups were not significantly different in their achievement in the pre-test. After ascertaining that the two groups do not differ significantly, the investigator introduced smart class approach to the experimental group and taught the control group through traditional method.

##### 7.4.2 Difference the means of the control group and the experimental group in the Post test

After three weak researchers introducing the respective treatments the same achievement test was administrated to both (control group and experimental group) the group again. The results of the test are given below and were analyzed in such a manner which depicted in table given below:

**Table 2: Significance of the difference the means of the control group and the experimental group in the Post test**

Group	N	Mean	S.D.	t- value
Control	29	23.95	5.02	4.08
Experimental	31	26.24	4.95	

Table 2 revealed that students in control group have mean 23.95 and standard deviation 5.02 and students in experimental group have mean 26.24 and standard deviation 4.95. For determining the significance of difference t- test was used. t- Value was calculated 4.08. The calculated t value 4.08 is greater than the table t-value at 0.05 levels. This revealed that the two groups differ significantly in their achievement, its mean that smart class teaching method is very effective than traditional teaching method. Students who received the instruction through smart class achieved the high marks rather than who received the instruction conventional teaching method. By using multimedia and other way of resenting content interested the students learning and their memory, understanding skills increased. Thus we can say that Achievement of experimental group is better than the control group. Hence null hypothesis is rejected that there is no significant difference in the performance of students of experimental group and control group.

##### 7.4.3 Difference between the mean achievement scores of boys and girls

In this section researcher was interested to know that Smart class are equally effective for girls and boys. So the researcher analyzed the scores of boys and girls of experimental group. For analyzing the significance of difference between girls and boys of t-test was used.

**Table 3: Significance of the difference between the mean achievement scores of boys and girls**

Group	N	Mean	S.D.	S. Ed.	t- value
Boys	14	13.16	2.8	0.58	1.37
Girls	17	13.08	2.4		

Table 3 revealed that male students in experimental group have mean 13.16 and standard deviation 2.8 and female students in experimental group have mean 13.08, and standard deviation 2.4. For determining the significance of difference t- test was used. Calculated t- Value was 1.37. The t value 1.37 was less than the table value to be significant at 0.05. This mean that boys and the girls do not differ in their achievement in Science in the post test. This shows that package is equally effective with boys and girls.

### 8. Findings

- There exists a significant mean difference in the effect of smart class room learning environment on academic achievement in Science subject.
- The result shows that the students taught through smart class have scored better achievement than subject taught through traditional method.
- Boys and the girls do not differ in their achievement in Science in the post test. This shows that package is equally effective with boys and girls.

### 9. Suggestions

Smart class is bringing digital revolutions in the classrooms. Teaching and learning has indeed become very interesting and effective. The old method of chalk and board is being done away with the introduction of visual aids. Education through new technology like the smart class has made it easier for the teachers to relate the subject to the pupils and the pupils are very receptive to it. This system is making use of imagination of the student to make them understand the subject in all its pros and cons in such a way that it remains in their memory for long time to come. The researcher by her experience in conducting this study , would like to put forward the following suggestions:

- Smart class room learning help to increase the learning abilities.
- Smart class may use as a self -study medium
- The curriculum should be framed keeping in view the application of smart classes of teaching.
- Teachers should use maximum instrument of multimedia in the class room.
- Government should provide grants for teaching aids like multi- media projector, Computer etc.
- Teacher must be trained to use such devices of multi- media and can able to serve content with presentation.

### 10. Conclusion

Smart class is bringing digital revolutions in the classrooms. Teaching and learning has indeed become very interesting and effective. The old method of chalk and board is being done away with the introduction of visual aids. Education through new technology like the smart class has made it easier for the teachers to relate the subject to the pupils and the pupils are very receptive to it.

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