



# EFFECTIVENESS OF SMART CLASS INSTRUCTION OF CERTAIN SELECTED CONTENT IN ECONOMICS AMONG NINETH STANDARD STUDENTS

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## Abstract

The technology is bringing some exciting innovations to education. presently technology are being used highly in teaching and learning process at all levels Hence the investigator was interested in knowing the effectiveness of smart class instruction. The problem taken for the investigation is on “Effectiveness of smart class instruction of certain selected content in economics among eleventh standard students”.The objectives of the study to find out the significant difference between the pre-test and post-test mean scores of the experimental group and controlled group. Results reveal that there is a significant difference between the post-test mean scores of experimental group and controlled group in smart class teaching in economics. Based on the findings the investigator found that the smart class instruction has a better impact on students for successful and ethical implementation, rather easy to learn the economics content compared to normal teaching for teachers. It is also helping to than routine tasks or isolated technical skills. Handle the class easily and teach the content with multiple instructional materials. Students save the time properly and understanding and assimilate the contents quickly.

**KEY WORDS:** Effectiveness, Smart Class Instruction, Economics content.

## INTRODUCTION

Educational technology is the study and ethical practice of facilitating learning and improving performance by creating, using, and managing appropriate technological processes and resources. As a field, educational technology emphasizes communication skills and approaches to teaching and learning through the judicious

use and integration of diverse media. Scholars in the field examine the uses of innovative media and technologies for education, examining all aspects from direct student learning to management and impacts on institutions. As in all forms of applied technology, the field studies how theoretical knowledge and scientific principles can be applied to problems that arise in a social context. Practitioners in educational technology seek new and effective ways of organizing the teaching and learning process through the best possible application of technological developments. These activities rely upon a body of knowledge.

The field provides the research base for effective utilization of new media in education and by default is interdisciplinary in its approaches and theories. This may include human-computer interaction and cognition, social and behavioral aspects of media in learning, or change and innovation theory among social and cultural groupings as the basis for research and study.

### **SMART CLASS INSTRUCTION**

Smart class is the only digital learning solution that can truly claim an All India presence: 8000 schools across 600 districts in the country. Smart class did what no one had ever thought of before, bring technology into the classroom. It brought an exhaustive repository of world class digital modules or lessons, (consisting of 2D and 3D animations, graphics, audio and video) on every subject in the K12 spectrum, which the teacher could easily access and project in the classroom that illuminated and explained abstract and difficult concepts with clarity. The result was amazing. Knowledge flourished... freed from the centuries old bonds of books and chalk and blackboard. A new light of understanding dawned on young awakened minds. And the classroom became a fascinating place to be in as a new generation of learners saw (instead of just being told and explained) for the first time how things happened. And the teacher smiled as she now saw not just one, two or three but a sea of hands goes up every time she asked a question.

### **SMART CLASS**

The concept of smart class is simple. A server is set up inside the school, loaded with digital instruction and assessment materials mapped to the school curriculum. Classrooms are wired to the server and are equipped with a state-of-the-art Digital Teaching System (DTS) comprising of a highly versatile interactive white board and a sophisticated projection system. Teachers access the digital content in their classrooms on an everyday basis, project it on the board during their classroom sessions and explain concepts with the help of animations, graphics, video etc. Smart class is implemented in schools on a turn-key basis. Smart Class Company's provides all elements required for its implementation such as Hardware, Library of Digital Content, teachers training, and periodic support to ensure smooth functioning of the program.

### **NEED AND IMPORTANCE OF THE STUDY**

Development of one country is basically depending upon the student's mental growth. The Students knowledge should be improved in high level. Special attentions should be given for that. So the use of technology is essential in education. It develops the mentality of interaction and collaboration. It can help students to save, record, edit and adapt their works quickly and efficiently. The technology is bringing some exciting innovations to education. presently technology are being used highly in teaching and learning process at all levels Hence the investigator was interested in knowing the effectiveness of smart class instruction.

The developing country like India has so many problems in the field of education. Population explosion, knowledge explosion and aspirations to learn more, large heterogeneous groups of students in every class, vast curriculum in front of the teachers and students to achieve, are a few important problems among them. The range of instructional options is narrow and alternatives to succeed are limited the heterogenic character of the student populations is not being taken in to consideration in this context there is a possibility that smart class may be effective in ensuring mastery on the part of the student.

### **OBJECTIVES**

1. To find out the significant difference between the pre- test and post-test mean scores of the experimental group.
2. To find out the significant difference between the pre- test and post-test mean scores of the controlled group.
3. To find out the significant difference between the post-test mean scores of the experimental group and controlled group.
4. To find out the significant difference between the post-test mean scores of economics in experimental group with respect to sex.
5. To find out the significant difference between the post-test mean scores of economics in experimental group with respect to their residence.

### **HYPOTHESES**

1. There is no significant difference between the pre- test and post-test mean scores of the experimental group.
2. There is no significant difference between the pre- test and post-test mean scores of the controlled group.
3. There is no significant difference between the post-test mean scores of the experimental group and controlled group.
4. There is no significant difference between the post-test mean scores of economics in experimental group with respect to sex.
5. There is no significant difference between the post-test mean scores of economics in experimental group with respect to their residence.

### **SAMPLING FOR THE STUDY**

The sample used for the study was the IX-standard pupils of Higher Secondary School, district under Tamilnadu State Board. The investigator request the headmaster and economics teacher of the school and 108 students were selected as the sample in school.

### **DEVELOPMENT OF SMART CLASS INSTRUCTION**

For the smart class teaching the researcher first to select the content and prepare the lesson plan in the knowledge centre. Here the teacher searches the topic from the smart class package and internet. Save the contents to the folder of teacher's id. The selected content chemical bond is validated to the school principal

and subject teachers. Some correction was done in question by them. Finally the question made easy to the students with respect to their understanding capacity.

First the pre-test was done by entire samples. Next the sample separated in two groups one is experimental group and another is controlled group. Smart class teaching was done by the researcher to the experimental group. Here the researcher uses her id folder to teach chemical bond in economics subject with special 2d effects and audio, video concepts. Three types of bonds and its shapes displayed. Relevant explanations are given to the students.

Secondly the ordinary teaching is used to the controlled group students. The lesson thought by block board method. Finally the post test was conducted both experimental and controlled group.

## ANALYSIS OF DATA

**HYPOTHESIS 1:** There is no significant difference between the pre- test and post-test mean score of the experimental group.

Table 1

Group	N	Mean	SD	"t" value	Significant Level 0.05%
Pre-Test	54	28.00	7.50	22.40	S
Post-Test	54	67.64	11.00		

The above table shows that the computed 't' value 22.40 is greater than the critical value of 2.68 at 0.05 level. Hence, it is significant. Consequently, the null hypothesis is rejected and it can be said that, there is a significant difference between the Pre-test and post test scores of experimental group in economics subject at eleventh Standard students. It is concluded from the above table that, the post test have achieved more than the Pre-test scores of experimental group.

**HYPOTHESIS 2:** There is no significant difference between the pre- test and post-test mean score of the controlled group.

Table 2

Group	N	Mean	SD	"t" value	Significant Level 0.05%
Pre-Test	54	24.79	7.15	10.20	S
Post-Test	54	48.02	14.69		

The above table shows that the computed 't' value 10.20 is greater than the critical value of 2.68 at 0.05 level. Hence, it is significant. Consequently, the null hypothesis is rejected and it can be said that, there is a significant difference between the Pre-test and post test of normal teaching in economics subject at eleventh Standard students. It is concluded from the above table that, the post test have achieved more than the Pre-test.



**HYPOTHESIS 3:** There is no significant difference between the post test mean scores of the experimental group and controlled group.

Table 3

Group	N	Mean	SD	“t” value	Significant Level 0.05%
Experimental	54	66.70	12.10	7.06	S
Control	54	48.4	15.01		

The above table shows that the computed ‘t’ value 7.06 is greater than the critical value of 2.68 at 0.05 level. Hence, it is significant. Consequently, the null hypothesis is rejected and it can be said that, there is a significant difference between the posttest mean scores of experimental group and controlled group in smart class teaching in economics. It is concluded from the above table that, the post test means scores of smart class teaching achieved more than the normal teaching.

**HYPOTHESIS 4:** There is no significant difference between the post test mean scores of economics in experimental group with respect to sex.

Table 4

Group	N	Mean	SD	“t” value	Significant Level 0.05%
Boys	29	69.70	9.82	2.071	S
Girls	25	64.41	10.47		

The above table shows that the computed ‘t’ value 2.071 is higher than the critical value of 2.06 at 0.05 level. Hence, it is significant. Consequently, the null hypothesis is rejected and it can be said that, there is a significant difference between the post test mean scores of economics in experimental group with respect to boys and girls.

**HYPOTHESIS 5:** There is no significant difference between the post test mean scores of economics in experimental group with respect to their residence.

Table 5

Group	N	Mean	SD	“t” value	Significant Level 0.05%
Unborn	30	68.10	11.00	0.65	S
Rural	24	66.13	10.09		

The above table shows that the computed ‘t’ value 0.65 is less than the critical value of 2.68 at 0.05 level. Hence, it is not significant. Consequently, the null hypothesis is accepted and it can be said that, there is no significant difference between the post test mean scores of economics in experimental group with respect to their residence

## FINDINGS

1. There is a significant difference between the pre- test and post-test mean scores of the experimental group in the effectiveness of smart class instruction.
2. There is a significant difference between the pre- test and post-test mean scores of the controlled group in the effectiveness of smart class instruction.
3. There is a significant difference between the post test mean scores of smart class teaching economics in experimental group with respect to the controlled group in the effectiveness of smart class instruction.
4. There is a significant difference between the post test mean scores of economics in experimental group with respect to boys and girls in the effectiveness of smart class instruction.
5. There is no significant difference between the post test mean scores of economics in experimental group with respect to their residence in the effectiveness of smart class instruction.

## DISCUSSION

Hypothesis testing to the investigator found that the smart class instruction has a better impact on students easy to learn the economics concept compared to normal teaching for teachers. It is also helping to handle the class easily and teach the lesson with multiple instructional materials. Students save the time properly and understanding the contents quickly.

## CONCLUSION

The specific conclusions emerged out of the present investigation are as follows. Smart class is easy to learn economics concepts to better than normal teaching. Since this smart class helps to learners how to learn systematic way. In this smart class highly beneficial and as students have followed in they showed good results. The research study states that there is a significant mean difference between the post test of experimental group and controlled group.

Our nation improvement is based on our education system. The Government allocates sufficient funds and facilitates the technological resources for smart class instruction. This is the primary step to move on the technological world of education. The present investigation is a very unique study conducted in a developing country like India to study smart class instruction hence this study has contributed to the field of technology in education.

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