



**ORIGINAL RESEARCH PAPER**

**Education**

**IMPROVEMENT OF LEARNING OUTCOMES THROUGH SMART VIRTUAL CLASSROOM AMONG HIGH SCHOOL STUDENTS**

**KEY WORDS:** Learning Outcomes, Smart Virtual Classroom, Ict.

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**ABSTRACT**

A Smart virtual classroom is an online learning environment that contains all course materials of education. The conception of the smart virtual class room has made it possible for students to tackle the features of the internet to create meaningful and constructivist learning environment of School education. Information and Communication Technology (ICT) is playing vital role in teaching learning process of smart virtual class room. It increases the flexibility of delivery of education so that learners can access knowledge anytime and from anywhere. At the same time the students get knowledge or skills from some programs and assignment in the concept of learning outcomes.

**INTRODUCTION**

Technology plays a vital role in every sphere of life and education is no exception. The advent of technology has deeply impacted the educational scenario of the world. Technology has certainly changed the way we live. It has impacted the different facets of life and redefined living. In the present era, the development in various aspects of computer technology has reached beyond our imagination and expectations. As computer becomes part and parcel of our life, knowledge of computers is very much needed for everyone. Information and Communication Technology (ICT) is playing a vital role in teaching and learning to meet the needs and anticipation of the learners' in large scale.

The main purpose of ICT in education means implementing of ICT equipment and tools in teaching and learning process as a media and methodology. The purpose of ICT in education is generally to make students familiar with the use and workings of computers, and related social and ethical issues. Due to miscellaneous requirements in teaching and learning for a Smart board, there are opportunities and challenges that are to be addressed in usage of the technology and the service(s) being provided through ICT.

**Statement of the problem**

The problem of the study is stated as, "improvement of learning outcomes through Smart Virtual Classroom (SVC) among high school students."

**Definitions of terms used in the study**

**Learning outcomes**

Learning outcomes are statements that specify what a learner will know or be able to do as a result of a learning activity. Outcomes are usually expressed as knowledge, skills, or attitudes.

**Smart Virtual Class rooms**

A smart virtual classroom is a teaching and learning environment where participants can interact, communicate, view and discuss presentations, and engage with learning resources while working in groups, all in an online setting.

**Significance of the study**

Education is the driving force of economic and social development in any country. Hence, it is necessary to find ways to make education of good quality, accessible and affordable to all, using the latest technology available. From last two decades ICT has been used and its usage has caused a revolutionary change in the development of society.

**Objectives of the study**

To find out improvement of learning outcomes through smart virtual classroom among high school students in terms of

- a. Boys and Girls
- b. Students with urban and rural school background

**Hypotheses of the study**

- a. There is no significant difference in improvement of learning

outcomes between boys and girls.

- b. There is no significant difference in an improvement of learning outcomes between urban and rural students.

**METHODOLOGY**

In order to achieve the objectives of the present investigation, survey method was employed. The methodological detail like sample, tool, and procedure of data collection, scoring procedure and statistical techniques are given below.

**Sample**

The research work using the stratified random sampling technique. After selecting institutions 200 students were selected randomly selected from high schools.

**Tools used for the study**

The level of learning outcomes to the sample was determined based on the examination marks in the Term exam. The Term exam conducted as per the prescribed norms of government. The percentage of total marks of 200 students was taken for the research purpose.

**Data collection**

In order to assess the improvement of learning outcome through smart virtual class room among high school students, the tool was distributed to them and administered faithfully in strict accordance with the directions provided.

**Statistical techniques used**

In order to analyses and interpret data, the following statistical techniques- descriptive analysis, differential analysis and relational analysis.

**Delimitation**

The following are the delimitation of the study

- a. The present study has selected high school students only
- b. For this study the investigator collected data from 200 students only.

**Analysis and interpretation of data**

For analysis and interpretations of data, the relevant input and analytical finding and inferences derived have been presented in different tables and their discussion provided after the table;

**There is no significant difference in improvement of learning outcomes between boys and girls.**

**TABLE: 1**

Variables	No	Mean	S.D	't' Value	Significant Level
High School Boys	82	53.74	13.43	9.25	S
High School Girls	118	62.46	13.15		

From the above table, it is observed that the 't' value with respect to learning outcomes is (9.25) is significant at 0.01 level, indicating

that the girl students have higher level of improvement in learning outcomes through smart virtual class room.Hence the null hypothesis that “there is no significant difference in improvement of learning outcomes between boys and girls” is rejected.

**TABLE: 2**  
**There is no significant difference in an improvement of learning outcomes between urban and rural students.**

Variables	No	Mean	S.D	't' Value	Significant level
High School Urban students	85	62.70	12.94	10.78	5
High School Rural students	115	52.61	13.24		

From the above table, it is observed that the 't' value with respect to learning outcomes is (10.78) is significant at 0.01 level, indicating that the urban students have higher level of improvement in learning outcomes through smart virtual class room. Hence the null hypothesis that “there is no significant difference in improvement of learning outcomes between urban and rural students” is rejected.

**Findings**

- The high school boys and girls differ significantly in terms of improvement of learning outcomes through smart virtual class room.
- The high school urban and rural students differ significantly in terms of improvement of learning outcomes through smart virtual class room.

**Implications of the study**

The following are the educational implications of the study

- These findings of the study will be of immense use of understanding the improvement of learning outcomes of high school students by using smart virtual classroom.
- This study proved that improvement of learning outcomes by using smart virtual class room among high school students.
- Thus, this study strongly evinced the importance of technology aided learning environment in the teaching learning process of school education.

**Areas for further research**

Some of the areas for research in the future may be as follows.

- The present study was confined to the government high school level only. This study can be done in various types of school like matriculation school, higher secondary schools etc.
- This work can be done in comparative study of different schools, districts etc.

**CONCLUSION**

It is true that smart virtual class room that is ICT is playing a vital role in improvement of learning outcomes but at same time there are many opportunities and challenges that are to be addressed for smooth functioning of various services that are to be implemented for its learners and other public provided through ICT. In this paper reveals that the high school students have better improvement of learning outcomes by using smart virtual class room.

**REFERENCES**

1. Blurton, C., "New Directions of ICT-Use in Education" [http:// www. unesco. org/ education/ educprog/hwf/dl/edict.pdf](http://www.unesco.org/education/educprog/hwf/dl/edict.pdf);
2. Accessed 7 August 2002.
3. Cholin, V. S. (2005), 'Study of the application of information technology for effective access to resources in Indian university libraries', The International Information & Library Review 37(3),
4. Vu, K. " ICT and Global Economic Growth"
5. [http://www. ksg. harvard. edu/ cbg/ ptep/ khuong vu/ Job %20 Market% 20Paper. pdf](http://www.ksg.harvard.edu/cbg/ptep/khuongvu/Job%20Market%20Paper.pdf); Accessed 21 December 2004.
6. [http://www. teachhub. com/ technology- classroom- benefits- smart- boards](http://www.teachhub.com/technology-classroom-benefits-smart-boards)
7. [http://1000projects. org/ virtual- classroom- system- project- abstract. html](http://1000projects.org/virtual-classroom-system-project-abstract.html).
8. [https://www. techopedia. com/ definition/ 13914/ virtual- classroom](https://www.techopedia.com/definition/13914/virtual-classroom).