

**A Study on the Utilization of Computers in Teaching At Secondary Schools**

**Dr Mandala Chandrashekhar Goud**

Associate Professor

MNR Rural PG College of Education

Sangareddy, Telangana State, India-502294

**Abstract**

The present study focused on the utilization of computers in teaching at secondary schools. The findings of this study will have implication value in designing the curriculum. The type of the present research work is 'Applied Research' and uses the 'Survey Method' of research. 'Stratified Random Sampling Method' adopted for sampling. A self prepared and standardized questionnaire for the teachers is used to collect the data. The study covered 100 secondary school students. Computers can be used for effective management and administration at school level. Keeping this view in mind the secondary schools have been installed with computers to increase the standard of teaching learning process. The urban and private management schools compare to rural and government schools are showing effectiveness in the utilization of computers in teaching. The present study suggests to improve laboratory facilities like softwares, internet, uninterruptable power supply, and trained persons.

**Keywords:** Computers, secondary schools, urban, rural.

**Introduction:**

A computer may be defined as an electronic machine which is a fast and accurate symbol or data manipulating system organized to accept and store input-data, process them and produce output results under the direction of a detailed step by step stored set of instructions.

Better communication is education. Education is knowledge. This is the age of knowledge explosion and exploration. Rapid progress in computer technology has invaded the education arena. Over the last few decades, computers and communication technology have a significant impact on the ways in which one can learn, teach, communicate and gain access to information.

Earlier computers in education concentrated on individual instruction involving Computer Assisted Instruction (CAI). But the recent developments in education technology call for a more holistic and integrated models and approaches to the educational process. The new instructional technologies have brought about changes in pedagogy and curriculum content and have been instrumental in increased academic attainments and teaching effectiveness. The technology like electronic lecture, e-class room, collaborative learning and teaching. Tele-teaching student self-assessment through automated interactive outline teaching. Use of digital resources e-libraries and access to the internet and the World Wide Web (www) are the educational tools and techniques of the future.

**Statement of the problem:**

The topic for the present study on "*Utilization of Computers in Teaching at Secondary Schools with special reference to Sangareddy Mandal*".

**Need of the study:**

Computers are increasingly playing an important role in the classroom. Technology and science have revolutionized the life of man. Today, computers are being used in every field like industry, marketing, etc. Computers is used as an effective instructional and in the teaching learning process. They are used to increase the quality and rate of learning without much cost. Computers can be used for effective management and

administration at school level. Keeping this view in mind the secondary schools have been installed with computers to increase the standard of teaching learning process. Hence the present study is to be carried out to know how effectively computers are being utilized for teaching learning process in schools.

**Significance of the study:**

Computers have entered all walks of human life across the world. They are being used in various fields including education. Computers were introduced into this field to make the teaching learning process easier and effective. The present study is to be carried out to know the utilization of computers as an instructional aid, as a tool, tutor, and in school management. The main idea behind the study is to know about the extent of utilization of computers in teaching at secondary school level.

**Objectives of the study:**

1. To study the opinion of teachers regarding utilization of computers in teaching among all teachers at secondary schools.
2. To study the opinion of teachers regarding utilization of computers in teaching among male and female.
3. To study the opinion of teachers regarding utilization of computers in teaching among urban and rural.
4. To study the opinion of teachers regarding utilization of computers in teaching among Government and private.
5. To study the opinion of teachers regarding utilization of computers in teaching among maths, Science and Social subject teachers.

**Limitations of the study:**

The present study was carried out with the following limitations:

1. The study has been limited to variables are whole, gender, location, management, subjects.
2. The study has been limited to 100 samples.
3. The study has been limited to utilization of computers at secondary level schools only.
4. The study has been limited selected secondary schools of Sangareddy mandal.

**Selection of sample:**

The present study was intended to know utilization of computers in teaching at secondary schools in Sangareddy Mandal, 20 secondary schools were selected randomly and satisfied at school level, out of which 10 were government and 10 private schools. The data was collected from 50 government school teachers and 50 private school teachers of different schools.

**Nature of the sample based on Gender:**

The data was collected from 50 male school teachers and 50 female school teachers of different schools.

**Nature of the sample based on Location:**

The data was collected from 50 urban school teachers and 50 rural school teachers of different schools.

**Nature of the sample based on Management:**

The data was collected from 50 government school teachers and 50 private school teachers of different schools.

**Nature of the sample based on subject:**

The data was collected from 36 Mathematics teachers, 32 Science teachers and 32 Social studies teachers of different schools.

### Development of the Tool:

The tool used for the collection of data is in the form of a questionnaire. In the process of the development of the tool the researcher referred many books and journals to identify the related aspects. Each aspect was developed into an item. The same items were put forward before the expert. The expert identified the relevant items and suggested some more new items. A detailed questionnaire for the teachers consisting of 21 items was prepared perfectly to know about the utilization of computers in teaching at secondary school level in Sangareddy Mandal.

### Data Collection Procedure:

The study was intended to know the utilization of the computers in teaching at secondary level schools in Sangareddy Mandal. For this study 10 government and 10 private schools of Sangareddy Mandal were selected randomly. A questionnaire given to 50 subject teachers working in selected government schools and 50 teachers working in private schools. The researcher visited the schools personally and gave the questionnaire by the hand to the concerned subject teachers in the schools. The questionnaires were collected after the teachers marked the their opinion, for every item in the paper. The study was conducted in November, 2017.

### Statistical techniques used:

The questionnaire contained 21 items. The data was tabulated carefully and item wise analysis was done using statistics. The Chi-square test was used for analyzing the data. Later the results were interpreted and conclusions were drawn from it.

After collection of data. It is analyzed with the help of Chi-square ( $\chi^2$ ) test to interpret the data.

(i) Chi- square test for equal probability.

$$\chi^2 = (fo-fe) 2/fe$$

Probability fo- observed frequency.

fe- expected frequency.

(ii) Chi-square test for 2  $\chi^2$  contingency table.

$$\chi^2 = N (AD-BC) 2/ (A+B) (C+D) (A+C) (B+D)$$

(iii) df = (rows-1) (columns-1)

Df	0.05	0.01
1	3.841	6.635
2	5.991	9.26

### Findings of the study:

1. It is concluded that the most of the schools in private compared to the government, they have a computer lab in their schools.
2. It is evident that the most of the schools have separate teachers in their schools to teach computers.
3. It reveals that the most of the schools in urban and private compared to rural and government have uninterrupted power supply for the computer lab.
4. It is found in the study that the most of the teachers in private compared to government have computer knowledge.
5. It is found that the most of the teachers in urban compared to rural have taken professional training in computers.
6. It is evident that most of the teachers really like computers in their classroom teaching.
7. It reveals that the most of teachers in private compared to government schools have loaded software in the computers in relation to their subjects.

8. It is concluded that the most of teachers in urban compared to rural use CD's on scientific discoveries or life histories of great scientists.
9. It is concluded that the most of the teachers think teaching through computers is effective.
10. It is evident that the most of the teachers think it is necessary to provide computer education at school level.
11. It reveals that the most of the teachers in urban compared to rural they didn't invite guest faculty to deliver the lectures.
12. It is found in the study that the most of the teachers said that their head master encourage teaching through computers.
13. It is concluded that the most of teachers in urban and private compared to rural and government, they use CD's of cartoons for students' entertainment.
14. It is evident that the most of the teachers said that the appointment of exclusively trained teacher is necessary for teaching by using computers.
15. It reveals that the most of teachers feel the making use of the computer is more experimental than the traditional classroom.
16. It is found in the study that the most of the teachers in government compared to private said that necessary to learn typing to use computer in teaching.
17. It is concluded that the most of the teachers in urban and private compared rural and government said that they have multimedia packages in the teaching of their subject.
18. It is evident that the most of teachers in rural compared to urban said that they feel computers are useful in teaching of their subject.
19. It reveals that the most of teachers in urban compared to rural said that they using internet facilities while teaching their subject.
20. It is found in the study that the most of the teachers in private compared to the government said that they satisfied with teaching by using computers.

### **Recommendations:**

Considering the findings of this study the following recommendations are suggested to schools and parents.

1. Rural schools are to be encouraged to launch well equipped computer lab with required softwares, uninterruptable power supply and subject CD's.
2. Government schools are to be encouraged to launch well equipped computer lab with required softwares, uninterruptable power supply and subject CD's.
3. All the teachers should provided by updating computer knowledge which is useful to their subject teaching.

### **Conclusion:**

Based on the interactions of the findings of the present research and the elaborate methodology followed by the researcher, the researcher is convinced that, private schools compared to the government they have a computer lab in their schools. The schools have separate teachers in their schools to teach computers. The schools in urban and private compared to rural and government have uninterrupted power supply for the computer lab. The teachers in urban compared to rural have taken professional training in computers. The teachers in private compared to government schools have loaded software on the computers in relation to their subjects. The teachers feel the making use of the computer is more experimental than the traditional classroom. The schools, urban and private compared rural and government have multimedia packages in the teaching of their subject. The teachers in private compared to the government said that they satisfied with teaching by using computers. The urban and private management schools compare to rural and the government

schools are showing effectiveness in the utilization of computers in teaching. The present study suggests improving laboratory facilities like softwares, internet, uninterruptable power supply, and trained persons.

**Suggestions for further study:**

1. A study may be conducted on the opinions and awareness of the teachers and parents over the use of computers in school.
2. A Study may be conducted on the competency level of school teacher using computers using computer for teaching.
3. A study may be conducted on the use of computers as a tool for remedial teaching.
4. A study may be conducted on the use of computers for teaching gifted and backward children.

**Bibliography:**

1. Agrawal, B. C. (1996). Pedagogy of Computer Literacy: An Indian Experience. Concept Publishing Company.
2. Bindal & Sharma (2013). Impact of ICT on Teaching and Learning. Zenith International Journal of Multidisciplinary Research, 3(1), 262-271. Book Company, p.708.
3. Goel, D. R. (2000). Educational media in India. Delhi: Bharatiya Kala Prakashan.
4. Goud, MC. (2016). A study on the need of counselor at college level for career guidance and to prevent ragging. Retrived from Shodhganga: <http://hdl.handle.net/10603/192054>
5. Kadiravan, S. (1999). Effectiveness of Computer Assisted Instruction in Relation in Relation to Students Use of Self-regulated Learning Strategies. Indian Educational Abstracts, 3(2), 29-31.
6. Lokesh Koul. (Ed.). (1996). Methodology of Educational Research (Ed.2). New Delhi: Vikas Publishing House.
7. NCERT (1994). A Study on the Impact of Educational Telecast, New Delhi: NCERT.
8. Sharma. S (2012). Effectiveness of two methods of instruction: multimedia and conventional instruction for developing environmental awareness among elementary school children. Dissertaion Abstract, M. D. U Rohtak
9. Waxman, H. C., Lin, Meng.-Fen, & Michko, G. M. (2003). A Meta-Analysis of the Effectiveness of Teaching and Learning with Technology on Student Outcomes. December 2003. Naperville, Illinois: Learning Point Associates.

