Students Perception towards Innovative Technology-Computer in Perambalur District, Tamil Nadu

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Abstract: *Computer education has been embraced as one of the most potent means to ensuring rapid socio-economic progress. The purpose of the study was to investigate the students' opinion and attitudes toward computer. Convenience sampling technique was used and questionnaire was the tool developed to gather data from the 200 respondents. The study exposes that the majority of the students have knowledge and access to computers. The study also revealed that there were no disparities among the students towards computer. The study recommends that the Government policy on "One Laptop Per Child" must be vigorously pursued to enable all the higher secondary school students to have access to computers at home to improve their competencies and knowledge in new technology.*

INTRODUCTION

Computer has made its way in each walk of our life. It is one of the most powerful tools ever designed by man to solve the problem. Almost all of us are involved, in some fashion, with computers on a daily basis. They are in the cars we drive, the televisions we watch, the clocks that tell us the time, the microwave ovens that heat up food and, of course, in the machines that populate many of our desktops. Without computers, life would certainly be a lot different. Computers, however, are relatively new on the human scene. We can measure civilization in thousands of years and the industrial revolution in hundreds. Yet computers have only been around for tens of years. This relative new comer has been quick to take hold, dig in, and proliferate.

Computers are the main technology, support as a tool for effective learning and teaching process. Computer based instruction and computers programs, tools as itself provides much facilities and supports to students' educational life. Computers are update mechanism for the education and it is not only for education, these developments affect all global, cultural, economical life standards as well. The computer as productivity tool has great role in education

NEED FOR THE STUDY

Computers are becoming highly visible tools in our modern society. We can observe its impact on several of our activities including business, medicine, manufacturing and sporting events. In fact, their impact is so great that they have become an integral part of our lives. We are living in the computer age. Wherever we turn, people are working busily working on computers. It helps us in our day-to-day affairs.

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It has multifarious applications in the fields like business, transport, banking, medicine, industry, agriculture, science and technology, research especially in education.

Under these circumstances, the students at the Higher Secondary level should have a good attitude towards computer, as it is an indispensable part to lay a strong foundation for Higher Education. Hence, this topic "Higher Secondary School Students' Attitude towards Computer" has been taken for the present study.

STATEMENT OF THE PROBLEM

Computer technology is at the center of a new Industrial Revolution, which has transformed modern life. Computers of all types from the home computer to the giant mainframe are becoming more powerful. They are also able to perform many new functions especially in Education. We are living in the computer age. The miniaturization of electronic components is one reason for the enormous growth in computing in recent years. So the researcher decided to do a survey over it as "A study on Attitude of Higher Secondary School Students towards Computer in Perambalur District".

Scope of the Study

The Researcher hopes that, the findings of the study will provide useful suggestions, which will be helpful to the decision maker and students to enhance attitude towards computer in Education among higher secondary school students. The inclusion of different categories of schools will help in recognizing the inherent problems with reference to the utilization of educational technology.

Objectives of the Study

1. To examine the attitude of higher secondary students towards computer.

2. Determine gender disparity in the attitude of students towards computer.

3. To ascertain, whether the students differ in their attitude towards computer on the basis of their standard.

4. To know, whether the students differ in their attitude towards computer on the basis of the locality of the school.

5. To analyze, whether the students differ in their attitude towards computer on the basis of their group.

METHOD OF RESEARCH

The researcher has collected primary data from the students through a well set questionnaire. The raw data was collected from 200 respondents based on Convenience sampling method.

Size of Population and Samples

The population of the present study is all the higher secondary students in Perambalur District. But it is not practicable to approach each and every element of the population. So the researcher decided to collect only 200 samples (5 schools each 40) based on the convenience method.

Tools to be used

The well designed Questionnaire was used as a tool to find out the attitude of the higher secondary school students towards computer. The questionnaire had contained 33 Questions and the score for the responses were based on the 5 Point Scale method.

Collection of Data

The researcher in person went to various schools in Perambalur District and distributed the questionnaire to the students, after getting the permission from the respected school authorities. The students of different schools in the presence of the researcher filled the questionnaire. Only 5 institutions were selected for the sample selection.

The researcher used the following statistical techniques for analyzing the data.

*   Mean.

*   Standard Deviation.

*   't' test

*   'F' test (Analysis of variance)

Hypotheses of the Study (Ho1)

1. Higher secondary school students have favorable attitude towards computer.

2. There is no significant difference in the attitude of higher secondary students towards computer on the basis of their gender.

3. There is no significant difference in the attitude of higher secondary students towards computer on the basis of their standard.

4. There is no significant difference in the attitude of higher secondary students towards computer on the basis of the locality of the school.

5. There is no significant difference in the attitude of higher secondary students towards computer on the basis of their group.

Limitations of the Study

*   The study was confined only to Perambalur district.
*   The students from five reputed schools were taken for the research work.
*   Due to time and cost constraints, 200 samples were taken for the study.
*   Higher secondary school students alone were taken into account.

REVIEW OF LITERATURE

Wighting MJ (2017), has used a mixed method design to determine how far the use of computers in the classroom affects the sense of learning in a community among high school students. The main objectives of his study were to study how do high school students describe classroom community and its importance for their learning and what are the factors student consider to be important for the development of a sense of classroom community. Students were drawn from different socio economic backgrounds and some of them were from other countries.

Reid (2013) studied on 'Quality assurance, open and distance learning, and Australian universities'. They found that determined online instructors moved through different phases of their online learning experience, and their needs changed at each stage. Furthermore, considering educational leaders were responsible for the quality of online programs and instruction they also needed to engage in professional development, and experiment with online learning environments, infrastructures, and technolog

Anandan and Gopal (2011), studied the impact of ICT in classroom instruction. The quality of education depends to a great extent on the quality of teachers who use innovation in their teaching aspect through integrating technology in the classroom instruction to give the best to the students.As technology is a powerful tool for problem solving, conceptual development and critical thinking, it helps in making the learning process a much easier for the students.

Koeppen and Andre (2000) conducted a research entitled "Internet as the goal of project linking at lawa state University Fulbrigh–Hays projects abroad program". This projects linking established an international dialogue among middle school teachers and students in Moscow, Russia and in the United States. For each of five consecutive years, a new group of twelve as teachers joined a new group of twelve Russian teachers in Moscow to collaborate in developing curricular designed to prepare middle school youth to participate in a global society.

BranggElize, B (1998) investigated the effectiveness of multimedia CAI as a tool for teaching students about pie and line graphs and found that there was a significant gain in the subjects understanding and the purpose for the use of pie and line graphs.

Chang (1998) revealed that the new information technology is significantly altering the educational delivery system. Distributed education has become an important means of teaching and learning worldwide. Today, although networking technology makes it possible to present interactive communication, not enough has been done to optimize learning in this distributed environment.

Lingua Center, University of Illinois (1998) described that how the World Wide Web is useful in my study of English? That centre suggests that three important ways can use the World Wide Web as a resource to help for learning English thus follow:

(i)   The first of these is simply as another place to interact with and communicate in authentic English. While there are documents in other languages on the World Wide Web, the majority of them are in English.

(ii) Second way that the www can serve in study of English is through the use of dedicated ESL materials.

ANALYSIS AND DISCUSSIONS

Computer is a device that processes information with astonishing speed and accuracy. The most essential work in any research problem is the use and applications of statistical tools in analyzing and interpreting the research data.

Mean

The most used and familiar index of central tendency for a set of raw data or distribution is the mean. The mean is a simple arithmetic average of a set of raw scores, he simply adds all the scores up and divides by the total number of scores.

Standard Deviation

A more stable index that reflects the degree of variability in a group of scores is the variance, and its derivative,the standard deviation.

Standard Deviation = $\sqrt{\sum d2/N}$

$\sum$ = Summation

D = deviation from the mean

N = size of the sample

't' test

A statistical test applied to determine the significance of the difference in means when the sample size is small. (i.e. below 20). It is applicable only when the distribution is approximately normal

T = Difference in means/standard deviation of means

F test

This test is also known as Variance – Ratio Test. It is a statistical test which computes the probability that the ratios of two variables from two different population are equal. The purpose of F-test is to find out whether the two independent estimates of population variance differ significantly with one another or whether the two samples may be regarded as drawn from the normal populations having the same variances.

$$F = \frac{\text{Between the group variability}}{\text{within the group variability}}$$

Hypotheses Test 1

To test the level of Higher Secondary school students' attitude towardsComputer.

Hypothesis: Higher Secondary school students have favourable attitude towards computer.

Table 1: showing Mean, Standard deviation scores of Higher Secondary students attitude towards computer

	N	Mean	S.D
Score	200	76.21	8.79

From the above table the mean score of students is found to be 76.21, which is more than 50% and hence it is concluded that the Higher Secondary school students have favourable attitude towards Computer and thus the hypothesis is accepted.

Hypothesis Test 2

To test the significance difference in the attitude of Higher Secondary students' towards computer on the basis of their gender.

Null Hypothesis: There is no significant difference in the attitude of Higher Secondary students towards computer on the basis of their gender.

Table 2: showing Mean, SD and t-value towards the attitude of Higher Secondary students towards computer on the basis of gender

Gender	N	M	SD	t-value	LS
Male	80	76.10	9.166	0.380	NS
Female	120	76.59	8.551		

The above table shows that the computed 't' value 0.380 is less than the table value 1.96 , hence it is not significant. Thus, the null hypothesis is to be accepted and alternate hypothesis is to be rejected. It can be said that there is no significant difference in the attitude of higher secondary students' towards computer on the basis of their gender.

Hypothesis Test 3

To test the significance difference in the attitude of the Higher Secondary students towards computer on the basis of their standard.

Null Hypothesis: There is no significant difference in the attitude of the Higher Secondary students towards computer on the basis of their standard.

Table 3:Showing the Mean, SD and t-value towards the attitude of Eleventh and Twelveth standard students in computer

Standard	N	M	SD	t-value	LS
XI	100	76.26	8.876	0.216	NS
XII	100	76.53	8.731		

The above table shows that the computed 't' value 0.216 is less than the table value 1.96 and hence it is not significant. Consequently, the null hypothesis is to be accepted and research hypothesis is to be rejected. It can be said that there is no significant difference in the attitude of the Eleventh and Twelveth standard students towards computer.

Hypothesis Test 4

To Test the significance difference in the attitude of Higher Secondary students' towards computer on the basis of the locality of the school.

Null Hypothesis: There is no significant difference in the attitude of Higher Secondary students' towards computer on the basis of the locality of the school.

Table 4: showing Mean, SD and t- value towards the attitude of Higher Secondary students' towards computer on the basis of the locality of the school

Locality	N	M	SD	T	LS
Rural	100	76.26	8.876	0.216	NS
Urban	100	76.53	8.731		

The above table shows that the computed 't' value 0.216 is less than the table value 1.96 and hence it is not significant. Consequently, the null hypothesis is to be accepted and alternate hypothesis is to be rejected. It can be said that there is no significant difference between rural and urban locality school students' attitude towards computer.

Hypothesis Test 5

To Test the significance difference in the attitude of the Higher Secondary students towards computer on the basis of their group.

Null Hypothesis: There is no significant difference in the attitude of the Higher

Secondary students towards computer on the basis of their group.

Table 5: showing the Mean, SD and F value between Arts, Science and Vocational subjects students' attitude towards computer

Group	N	M	SD	F	LS
Arts	60	76.27	8.207		
Science	100	77.01	8.618	0.719	NS
Vocational	40	75.05	10.015		

The above table shows that the computed F value 0.719 is less than the table value 2.56 and hence it is not significant. Consequently, the null hypothesis is to be accepted and alternate hypothesis is to be rejected. It can be said that there is no significant difference between Arts, Science and Vocational subject's students' attitude towards computer. It is also concluded from the above table that the Science students have more favourable attitude towards computer than the other subject students.

SUMMARY OF MAJOR FINDINGS

1. The Higher Secondary School Students have favourable attitude towards computer.

2. There is no significant difference in the attitude of Higher Secondary School students towards computer on the basis of their gender.

3. There is no significant difference in the attitude of the Eleventh and Twelveth standard students towards computer

4. There is no significant difference between arts, science and vocatioanal subject's students' attitude towards computer. The science subject's students have more favourable attitude towards computer than Arts and Vocational subject students.

5. There is no significant difference in the attitude of higher secondary students' towards computer on the basis of the locality of the school.

6. There is no significant difference in the attitude of Higher Secondary Students towards computer on the basis of the type of the Management of the school.

7. There is no significant difference in the attitude of higher secondary students towards computer on the basis of their parents' educational qualifications.

8. There is no significant difference in the attitude of higher secondary students towards computer on the basis of their parents' occupation.

RECOMMENDATION

➢ Students -Parents first of all, have to understand the importance of the computer and its internet axis. Parents must educate their childrens about the computer potential and its usage, so that several works can be done easily and they can complete the task within the short span of time.

➢ Government should provide each and every family with one computer at free of cost, irrespective of the caste, creed etc. It motivates the students to develop their knowledge through computer usage.

➢ Government can make some changes in the teaching methodology also by keeping in view the recent computer technology.

➢ Utmost care and guidance is needed for the beginners and several programmes have to be arranged for the welfare of the students.

➢ People should accept that the computer has a great influence on educational context. As a result, computer can be worked better as a being great influencer and creating active learning for students and easy way to solve educational and study-based problems instead of being problematic in their life.

SUGGESTIONS FOR FURTHER STUDY

The present study was confined only to Perambalur District, covering 5 schools. This can be extended further by taking into account all the schools in and around perambalur area. Further studies can be conducted in college students, B.Ed teacher trainees, M.Ed teacher trainees, Staff members in college and school etc. This study can also be focused upon Urban or Rural area to derive clear-cut information about the attitude of the students towards computer.

CONCLUSION

Virtually every kind of organization throughout the world conducts business through computers. Students, teachers and research scientists use the computer as a learning tool. Millions of individuals and organizations communicate with one another over a network of computers called the Internet. Computer games entertain people of all ages. The emergence of new technological environment may revolutionize the teaching learning process. The role of the teacher will be different from the traditional classroom teaching. The teacher could be a manager, monitor, role model, counselor, facilitator and a social worker. Teaching methodology will shift from teacher centered education to learner centered education. Teacher's dominance will be replaced by the knowledge dominance. So students now learn through computer teacher, television teacher and internet teacher. The research study was concluded that the majority of the higher secondary school students have a favourable attitude towards computer, by applying mean value. There were no gender disparities, locality difference, standard difference and group difference in the attitude of students towards computer. Finally it says that the computer plays a vital role among all human beings in the up-trending economy.

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