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AWARENESS ON COMPUTER POTENTIALITY AMONG HIGHER SECONDARY STUDENTS AT TRIBAL AREAS IN ERODE DISTRICT

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Abstract

Computer covers the wide range of knowledge, the learner wonders at the intricacies. The fast changing world is witnessing so many changes in the curriculum, methodology and Students abilities. Amidst such changing scenario, it would be effective if we change the approaches or methods keeping the Students abilities in mind. Computer teaching in schools can make a difference in the lives of children and difference should be aimed at the positive side of the educational ladder. In today's educational system, computer is emerging as a very important technology. It is being used on a very large scale in the developed countries due to its interactive capabilities, particularly technology. It is being used any computer can store much data, arrange them properly, record anything that are stores, analyzing the responses of the pupils and can arrange various types of learning materials. In spite of all these, instructions can be imparted to the pupils through computer. A computer is an electronic machine that takes input from the user, processes the given input and generates output in the form of useful information. The computer plays an important role in lifelong education and enables Students to acquire knowledge and explore possibilities to solve problems. This develops their decision-making faculties and improves conditions for mutual interaction between the pupil and system.

Key words: computer education, educational ladder, decision making, abilities.

INTRODUCTION

Computer Education can provide training in scientific method and also helps develop a positive attitude by the learner through learning computer are of great value to citizen living in the society hence computer education is now made a compulsory subject in every system of school education right from the elementary stage. Computer teaching in schools can make a difference in the lives of children and difference should be aimed at the positive side of the educational ladder. Computer achievement is dependent upon the will of the people, their will of decision making citizens to support it and their will as individuals to become scientist.

MEANING OF COMPUTER

The word **"Computer"** has been derived from the word **"Compute"**. Initially, these were considered of fast calculating machines. A computer manipulates the number of symbols, which it accepts as input, processes that input and reproduces this as output. Computers are also called **"Data Processors"** as they store, process and retrieve data.

APPLICATIONS OF COMPUTER

Today, computers are used in almost every sphere of life such as Education, Communication and Banking. The various application areas of computers are as follows:

1. **Education:** Computers are used in schools are used in schools and colleges to teach students in a better and easy way.

2. **Business:** Computers are used in different types of businesses to store a large amount of information in the form of database.
3. **Communication:** Computers that the connected with each other through Internet can be used to transfer data to and from other computers.
4. **Science:** Computers are used by various scientists for the purpose of research and development.
5. **Engineering:** Computers are used by engineers for the creation of complex drawings and designs while working in different fields like automobiles and construction.
6. **Entertainment:** Computers are used in the entertainment industry for creating graphics and animations.
7. **Banking:** Now days, computers are being increasingly used for online banking. Through online banking, the users or customers can transfer and receive money by using computers and Internet.
8. **Health:** Several analog and digital devices are connected with computers enabling the doctors to monitor the condition of a patient and view the internal organs of the body.

NEED OF THE STUDY

1. It is only in an infant stage. Hence, it is important to study the awareness of Tribal area higher Secondary Students towards computer potentiality.
2. Education can enable individuals to make personal responsibility for improving their own status and their community and nation. So computer is bringing some exciting innovations to education.
3. Hence the investigator made an attempt to study the awareness on computer potentiality among higher secondary students in Tribal areas.

STATEMENT OF THE STUDY

In the modern context it is very important to think about computers in the field of Education generally and a special reference must be made on Teacher Education. Tribal Area Higher Secondary School students are not exceptional for this. In this context the investigator attempts to study the awareness of Tribal Area Higher Secondary Students towards computer potentiality and the topic is *"Awareness on Computer potentiality among Higher Secondary Students at Tribal areas in Erode District"*.

OBJECTIVES OF THE STUDY

1. To find out the level of awareness on computer potentiality of Higher Secondary Students at Tribal area.
2. To find out the level of significant difference on the awareness of computer potentiality between Male and Female Students in Tribal area.
3. To find out the level of significant difference on the awareness of computer potentiality between Maths and Science group Students in Tribal area.
4. To find out the level of significant difference on the awareness of computer potentiality between Maths and Arts group Students in Tribal Area.

NULL HYPOTHESES OF THE STUDY

1. There is no significant difference on the awareness of computer potentiality between Male and Female Students.
2. There is no significant difference on the awareness of computer potentiality between Maths and Science group Students.

3. There is no significant difference on the awareness of computer potentiality between Maths and Arts group Students.

DESIGN OF THE STUDY

Research design is a plan, a structure and a strategy of investigation conceived to obtain awareness to issues in research. A research design however, is not a highly specific plan to be followed without direction. Rather, it is a series of guideposts to keep right direction. Thus research design is the process of planning a research, choosing methods and procedures that can be expected to yield meaning and most interpretable results.

Table: 1 Schematic Representation of the Research Design

S.No.	Type	Source
1	Nature of the Research	Normative Survey Method
2	Tools Developed	Type of Tool Awareness on Computer potentiality among Higher Secondary Students at Tribal area in Erode District.
3	Variables	1.Gender 2.Studying group 3.Parents Educational status
4	Sampling Technique	Cluster Sampling Technique
5	Size of the Sample	Students- 205 (Boys: 102, Girls: 103)
6	Statistical Techniques	Mean, Standard Deviation, and 't' test

The present study belong to Normative survey Research. The variables used are Gender, group, parent's educational status among higher secondary students at Tribal area.

SCORING

The fifty statements in the rating scale offer the following comprehensive view.50x4=200,50x3= 150, 50x2=100, 50x1=50 thus all the scores could fell maximum 200 and minimum 50 scores.

LIKERT TECHNIQUE

A method of scaling know as summate rating that is known as Likert technique name after Likert is a widely used technique for developing an Computer potentiality scale. In this method each proposition usually called for a responded underlying of the four words such as strongly agree (SA), agree (A), Disagree (DA), Strongly Disagree (SDA) as a basis for determine the item to be selected for the final scale.

TOOLS USED FOR THE STUDY

The instruments employed for collecting data are called tools. "Tools employ distinctive ways of describing and qualifying the data".

Table: 2 Distribution of statements in Awareness on Computer potentiality among Higher Secondary Students

S.No	Students		Total
	Positive Items	Negative Items	**50**

1	1,2,3,5,7,8,11,12,14,15,17, 18, 20,21,22,24,25,26,27, 29,30,36,37,38,39,40,42, 44,45,47,48,50.	4,6,9,10,13,16,19,2 3,16,28,31,32,33, 34,35,43,46,49.	
Total	**32**	**18**	

The above table 3.2 shows the student's opionnaire to access the awareness in Computer potentiality among Higher Secondary School Students at Tribal area in Erode District. This tool consists of four point scale with 32 positive and 18 negative statements.

SAMPLE

A sample is small proportion of a population selected for observation and analysis. It is the only means through which opinions, attitudes and suggestions for improvement and such other data can be obtained. Survey studies help in contributing to other type of investigations and cover a large number of traits and characteristics of the groups.

Table: 3 The sample are shown according to the following variables

S.No.	Category of the variable		No. of Samples	Percentage	Total
1	Gender	Boys	102	50 %	205
		Girls	103	50 %	
2	Studying group	Maths	70	34 %	205
		Science	67	33 %	
		Arts	68	33 %	
3	Parents Educational status	Uneducated	84	41 %	205
		Educated	121	59 %	

COLLECTION OF DATA

The following steps were invariably followed while administrating the awareness scale.

1. Distribution of the individual awareness tool to each student.
2. Giving directions of how to mark the responses in the awareness tool.
3. Clearing the doubts of the students and giving additional instructions wherever necessary.
4. Giving sufficient time to mark the responses.
5. Strictly enquiring the marking of independent responses.
6. Collecting all distributed awareness tool.

STATISTICAL TECHNIQUES USED

a) Mean

Mean is used to measure the entire data by one value. It is obtained by adding to gather all the items and by dividing the total by the number of items.

$$\underline{X} = \mathbf{A} + \frac{\sum \quad fd}{N} \times c$$

Where,

C = Class interval

$\sum \quad fd$ = Total of the products of each class frequency with the steps Deviation of the respective class

N = Total frequency

$\underline{X}$ = Arithmetic mean

b) Standard Deviation

The standard deviation concept was introduced by Karl Pearson in 1823. It is used to measure dispersion standard deviation is also known as root of the mean of the square deviation from arithmetic mean.

$$\text{S.D.} = \sqrt{\frac{\sum fd^2}{N} - \left(\frac{\sum fd}{N}\right)^2} \times c$$

3) Techniques used for testing hypotheses

Student 't' test is used to find out the significance of the means of different groups of students. For example are boys and girls. The hypotheses formulated are tested using relevant statistics (i.e.) 't' test.

The test of significance of the difference between the two means is known as 't' test. 't' is calculated by using the below formula,

$$t = \frac{M_1 - M_2}{\sqrt{\frac{\sigma_1^2}{N_1} + \frac{\sigma_2^2}{N_2}}}$$

ANALYSIS OF DATA

The analysis of data represents the application of the inductive and deductive logic to the research process.

Analysis of data means studying the tabulated material in order to determine the inherent falls or meaning. Data accepted by the investigator got their meanings, when they are chanalized into the process of statistical analysis. It will give the investigator an insight into the problem. It simplifies the masses of number and facts and presents them in an understandable manner. Therefore analysis must lead to interpretation of data.

The analysis of data was attempted as per the objectives of the study. In the present study, the data are analyzed using mainly the following statistical techniques.

1. Percentage
2. Arithmetic Mean.
3. Standard Deviation
4.' t ' Value

TESTING OF HYPOTHESIS

After formulating the hypothesis, it is necessary to

1. Deduce its consequence.
2. Selected or develop tools that will determine whether these consequences actually occur and
3. Use the tools there by collecting facts that will confirm the hypothesis.

"A hypothesis is never proved; it is merely sustained (or) rejected"

Table: 4 The level of awareness on Computer potentiality among higher secondary students.

Category	Samples (N)	Mean	S.D
Awareness of Computer potentiality	205	75.7	6.98

The above table 4 shows Mean and S.D values of the higher secondary school students at Tribal area. The total number of sample is 205 from higher secondary school students at Tribal area in Erode District. An almost homogeneous group of 205 (102 Boys and 103 Girls) was selected for this study.

Table: 5 Significant difference the awareness of Computer potentiality between Boys and Girls

Variable	N	Mean	SD	't' value	Level of Significance (0.05)
Boys	102	75.6	6.9	0.19	1.97
Girls	103	75.79	7.07		

From the above table 5 it shows the calculated 't' value is less than the tabulated 't' value at 0.05 level of significance. So there is no significant difference on the awareness of Computer potentiality between Boys and Girls of higher secondary students at Tribal area.

Table: 6 Significant difference the awareness of Computer potentiality between Maths and Science group Students.

Variable	N	Mean	SD	't' value	Level of Significance (0.05)
Maths group students	70	77.50	6.46	2.28	1.98
Science group students	67	74.90	6.89		

From the above table 6 it shows the calculated 't' value is greater than the tabulated 't' value at 0.05 level of significance. There is significant difference on the awareness of Computer potentiality between Maths and Science group Students.

Table: 7 Significant difference the awareness of Computer potentiality between Maths and Arts group Students

Variable	N	Mean	SD	't' value	Level of Significance (0.05)
Maths group students	70	77.50	6.46	1.17	1.98
Arts group students	68	74.62	7.22		

From the above table 7 it shows the calculated 't' value is less than the tabulated 't' value at 0.05 level of significance. So there is no significant difference on the awareness of Computer potentiality between Maths and Arts group Students.

MAJOR FINDINGS OF THE STUDY

From the present study the investigator came to the following findings.

1. There is no significant difference on the awareness of computer potentiality between Boys and Girls Higher Secondary Students in Tribal area.
2. There is significant difference on the awareness of computer potentiality between Maths and Science group students.
3. There is no significant difference on the awareness of Computer potentiality between Maths and Arts group students.
4. There is no significant difference on the awareness of computer potentiality between Science and Arts group Students.

CONCLUSIONS BASED ON FINDINGS

1. On noticing the results with regard to the Tribal area Higher Secondary Students between boys and girls, there is no significant difference on the awareness of computer potentiality.
2. On noticing the results with regard to the Tribal area Higher Secondary Students between Maths and Science Group students, there is significant difference on the awareness of computer potentiality.
3. On noticing the results with regard to the Tribal area Higher Secondary Students between Maths and Art Group students, there is no significant difference on the awareness of computer potentiality. Now a day the Computer field is provided so many job opportunities. So both are having similar awareness about basic computer knowledge.
4. On noticing the results with regard to the Tribal area Higher Secondary students between Science and Arts Group students, there is no significant difference on the awareness of computer potentiality.
5. On noticing the results with regard to the Tribal area Higher Secondary Students between educated and uneducated parents of students, there is no significant difference on the awareness about Computer potentiality.

AREAS OF RESEARCH FOR THE FUTURE

There purpose of any research in education is to find solutions for problems related to teachers, students, learning etc… But investigation on one problem always leaves many related research questions that can be investigated by other researchers; some of the areas for research in the future may be as follows,

1. The present study could be undertaken at various states in India.
2. A study can be conducted on the Primary, Middle and High school teachers.
3. A similar study can be conducted on the professional college students.
4. A comparative study on the awareness of computer potentiality among the students of different categories like Scheduled Tribes and Scheduled Castes students.

RECOMMENDATIONS

Computers are an inherent part of life today. And all over the world they are making their presence felt in every sphere of life. From launching satellite to shopping for books, teaching any subject to play games. We are at the beginning of the age of computers, which are likely to have a bigger effect on the other products of the scientific revolution. The Following Recommendations are given for the awareness using Computer potentiality among Higher Secondary Students at Tribal area.

1. Generally the tribal area higher secondary students have favorable awareness towards computer knowledge. So the government schools must provide modern gadgets to the students.
2. CAI must be compulsorily added in the curriculum of teacher training.
3. The students may be trained to give some activities like quiz, debate, discussion, seminar, workshops etc., on awareness on Computer Education.

CONCLUSION

The study so far conducted mainly on the role of computers, microcomputers in classroom, teacher' awareness towards computer, uses of computers, development of computers and instructions are done. It is felt only a few studies were done on computers and

the awareness of higher secondary students in Tribal area towards computer potentiality. So the Investigator wishes to know whether factors like literacy of parents, Gender, Studying Groups… have any influence on the awareness of computer potentiality among Higher Secondary Students in Tribal area. This study deals with methodology of the present investigation as enumerated. Thus it gives brief details about selection of sample, pilot study, administration of tool in the study, data collection and statistical technique use in this study. In this study an attempt had been made to consolidate all the findings of the present study, the investigator also made some recommendation, which include the relevant area for this research and lastly the conclusion. The findings are based on the result collected from the awareness tool. Thus computer literacy should help in defining and implementing futuristic, global, intuitive, critical and holistic thinking.

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