"Computer Awareness among the Secondary School Students" – A Study

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ABSTRACT

In the present digital era, the development in various aspects of computer Technology has reached height beyond our imagination and expectation. Even though computers have a lot of applications in various fields. One should not forget their applications in their field of educations. They are very useful and helful in the teaching learning process. Therefore, computer literacy is very much essential for teachers as well as learners. On the basis of the analysis of the data, the following conclusions were emerged. They are primarily with reference their gender, management of the school and medium of the instruction and impact on the computer awareness among Secondary school students. It is concluded that the computer awareness among the Secondary school students is at desired level. When we observe their scores is even that above statement proves is correct. It is concluded that the boy students are better than the girl students in their awareness on basics of computer. It is concluded that Government school Secondary school students are better than the Secondary school students from private school students in their awareness on basics of computer. It is concluded that Telugu medium students are better than English medium students in their awareness on basics of computer.

KEY WARDS: *Computer, Secondary Education, Awareness, Attitude, Computer Applications*

I. INTRODUCTION

The word 'computer'. It means 'to calculate'. We all are familiar with calculations in our day to day life. We apply mathematical operations like addition, subtraction, multiplication, etc. and many other formulae for calculations. Simpler calculations take less time. But complex calculations take much longer time. Another factor is accuracy in calculations. So man explored with the idea to develop a machine which can perform this type of arithmetic calculation faster and with full accuracy. This gave birth to a device or machine called 'computer'.

The computer we see today is quite different from the one made in the beginning. The number of applications of a computer has increased, the speed and accuracy of calculation has increased. You must appreciate the impact of computers in our day to day life. Reservation of tickets in Air Lines and Railways, payment of telephone and electricity bills, deposits and withdrawals of money from banks, business data processing, medical diagnosis, weather forecasting, etc. are some of the areas where computer has become extremely useful.

However, there is one limitation of the computer. Human beings do calculations on their own. But computer is a dumb machine and it has to be given proper instructions to carry out its calculation. This is why we should know how a computer works.

II. OBJECTIVES OF THE STUDY:

1. To find out the computer awareness among Secondary school students with respect to their medium of the instruction.
2. To find out the Internet awareness among the Secondary school students with respect to their gender.
3. To find out the Internet awareness among the Secondary school students with respect to their management of the school.
4. To find out the Internet awareness among the Secondary school students with respect to their medium of instruction. To find out the computer awareness among Secondary school students with respect to their gender.
5. To find out the computer awareness among Secondary school students with respect to their management of the school.

HYPOTHESIS
1. There is no significant difference between Secondary school students of boys and girls with respect to their awareness on basics of computer.
2. There is no significant difference between Secondary school students of Telugu medium and English medium with respect to their awareness on basics of Computer.
3. There is no significant difference between Secondary school students of government and private schools with respect to their awareness on basics of computer.
4. There is no significant difference between Secondary school students of boys and girls with respect to their awareness on MS Word.
5. There is no significant difference between Secondary school students of Telugu medium and English medium with respect to their awareness on MS-Word.
6. There is no significant difference between Secondary school students of Government and private schools with respect to their awareness on MS Word.
7. There is no significant difference between Secondary school students of boys and girls with respect to their awareness on MS-Excel.
8. There is no significant difference between Secondary school students of Telugu medium and English medium with respect to their awareness on MS-Excel.
9. There is no significant difference between Secondary school students of government and private schools with respect to their awareness on MS-Excel.
10. There is no significant difference between Secondary school students of boys and girls with respect to their awareness on MS-PowerPoint.
11. There is no significant difference between Secondary school students of Telugu medium and English medium with respect to their awareness on MS-PowerPoint.
12. There is no significant difference between Secondary school students of government and private schools with respect to their awareness on MS-Power Point.

III. REVIEW OF RELATED LITERATURE
1) **Mahender, V. (2013)** Made study on Computer awareness among the under graduate students of Kakatiya University. He was founded that male students are better than female students towards their computer knowledge.

2) **Pramod Shukla (2005)** in his study " Internet use secondary level students" in this study the investigation compares the internet use by boys and girls of Secondary level students and also found that there is no significant difference between the internet use by boy students and girls students while Telugu medium and English medium differ significantly in using the internet.

3) **Balasubramanah. M (2005)** Made study on relative effectiveness among difference modes of computer based instruction. An attempt was made to establish the relative effectiveness among tutorial, dill and practice was more effective compared to tutorial in enhancing the retention of secondary school students.

4) **S. Rajashekar (2005)** Studied about university students attitudes towards computer. The researcher found that large of university students have a relatively favorable attitude towards computer.. it was found that there is no significant difference between boys and girls, Science students and Arts students, urban students and rural students.

5) **Nagappa. P (2002).** He conducted a study on attitude of secondary school students towards computer assisted leaving. The results revealed that boys of aided schools had favorable attitude and girls of unaided schools differed in their attitude from government schools students towards computer assisted learning.

6) **Ravitz. J Mergendolle Jand Rush (2002)** has studied about relationship between student's computer use and academic achievement. They found that generally there is an inverse relationship between in schools computer use and student achievement and computer proficiency.

7) **Nagappa. P. (2002)** conducted a study on attitude of secondary school students towards computer assisted learning. The results related that boys of aided schools had favorable attitude and girls aided schools differed in their attitude from government school students towards computer assisted learning.

8) **Hellen Joy. B.H, Manickam. L.S (2002)** Attitude of teachers and co relates. The study was conducted on experiment group of 35 high school teachers and a control group of 26 primary school teachers. There was significance different on the teacher competency in the pre and posts course or between experimental and control group in their attitude towards computer education.

9) **Bala Subramanian. N (2001)** mode a study on relative effectiveness among difference modes of computers based instruction. An attempt was made to establish the relative effectiveness among tutorial, drill and practice and situation. The study revealed that drill and practice was more effective compared to tutorial in enhancing the retention of secondary school students.

10) **Meera, S.S Balasubriamanyan (2000)** conducted a study on the effectiveness of the computer assisted instruction in learning biology. The result of the study were there was a significant difference among different models of computers based instruction in realizing the instructional objectives in teaching biology and teachers of secondary schools be given orientation as to develop CAI package in different modes and making use of available package to each.

11) **Ravitz, J./ Mergendollor, J. Rush, W. (2000)** have studied about relationship between students computers use and academic achievement they found that generally there is an inverse relationship between school computer use and students achievement. There is a positive overall relationship between student's achievement and lower proficiency.

IV. METHODOLOGY

Introduction

Research studies require a systematic collection of data from the sample through the use of appropriate data gathering devices. Research has three fold objectives theoretical, factual and application. These objectives are achieved by employing different between matter and method. In reality they form an organic whole and matter determination method analogously as objectives determines means and content and sprit, determines styles and form in literature.

Webster defines methodology as "The Science of method or arrangement" method is defined as orderliness and regularity of habitual practices of them in action".

According to Hillway (1964) "To describe in detail the specific method being used incidentally, constitutes a very good way of determining whether the method chosen has been worked out properly and is likely to prove effective. If the scholar cannot describe his method the chances are too vague and general to yield him satisfactory result." A pre planned and well describe method will proved the researcher a scientific and feasible plan for attacking and solving the problem under investigation.

Method Used

In the present study, descriptive and survey method would be used to study awareness among the Secondary school students of Honmakonda Mandal, Warangal District.

A Sample of 120 students is taken, out of this sample 60 boy and 60 girls students are selected randomly.

Design of the Study

The study is intended to find out the opinions of students and Teaching Faculty towards write the title for the purpose of study students were selected as sample for the study.

Sample of the Study

The sample for the study has been taken from Secondary school students of Khammam Dist., here I used stratified random technique tool for selecting sample. Sample limit was 400 students. In gender variable 200 from boys, 200 from girls, in Medium of instruction variable 200 students from Telugu medium, 200 students from English medium. In management of the school variable 200 students from the Government schools and 200 students from the private schools.

Area wise Sample taken as

S.No.	Variable	Quantity	Percentage
Gender	Boys	200	50%
	Girls	200	50%
Medium of Instruction	Telugu medium	200	50%
	English medium	200	50%
Management of the school	Government	200	50%
	Private	200	50%

Development of the Tool

The instruments that are employed to gather new facts or explore new fields are called 'Tools' it is of vital important to select suitable instruments or tools. Different tools are suitable for collecting different type of data. The use of a particular research tools depend up on the type research proposal the present investigator developed a questionnaire with the help of enlisted problems issues, opinions about Computer awareness among Secondary school students.

A researcher made questionnaire was designed in English and Telugu medium it includes 33 questions which are tested different areas i.e.,

1. Basics of the computer (8 Questions)
2. MS-Word (5 Questions)

3. MS-Excel (5 Questions)
4. MS-PowerPoint (5 Questions)
5. MS-Access (5 Questions)
6. INTERNET (5 Questions)

V. DATA ANALYSIS AND INTERPRETATION

HYPOTHESIS-1: There is no significance difference between Secondary school students of Government schools and private school students with respect to their awareness on basics of computer.

Table:-1
Shows awareness of Basics of the Computer among Secondary school students of Government and private schools

Sno.	Variable	Mean	SD	t' Value	LOS
1	Boys	5.85	1.65	1.5*	N.S
2	Girls	5.46	1.15		

*Not significant at 0.05 level

The above table shows that the mean scores of Secondary school students of Government and private schools are 5.85, 5.46. The SD values of the boys and girls are the 1.65, 1.15 respectively.
The calculated' value 1.5 is less than the table value (1.98) at 0.05 level. So there is no significance difference between Government school students and private school students towards their awareness on basics of Computer. Therefore the formulated Null Hypothesis is accepted.

HYPOTHESIS-2: There is no significance difference between Secondary school students of Government schools and private school students with respect to their awareness on basics of computer.

Table:-2
Shows awareness of Basics of the Computer among Secondary school students of Government and private schools

Sno.	Variable	Mean	SD	t' Value	LOS
1	Government	5.56	1.62	0.8*	N.S
2	Private	5.76	1.22		

*Not significant at 0.05 level

The above table shows that the mean scores of Secondary school students of Government and private schools are 5.56, 5.76. The SD values of the boys and girls are the 1.62, 1.22 respectively.
The calculated't' value 0.8 is less than the table value (1.98) at 0.05 level. So there is no significance difference between Government school students and private school students towards their awareness on basics of Computer. Therefore the formulated Null Hypothesis is accepted.

HYPOTHESIS--3: There is no significance difference between Secondary school students of Telugu medium and English medium students with respect to their awareness on basics of computer.

Table:-3
Shows awareness on basics of the Computer among Secondary school students of Telugu medium and English medium Schools

Sno.	Variable	Mean	SD	t' Value	LOS
1	Telugu	5.76	1.53	0.80*	N.S
2	English	5.56	1.34		

*Not significant at 0.05 level

The above table shows that the mean score of Telugu medium students and English medium students are 5.76, 5.56. The SD values of Telugu medium students and English medium students are the 1.53, 1.34 respectively.

The calculated 't' value 0.80 is less than the table value (1.98) at 0.05 level, so there is no significance difference between Telugu medium students and English medium students towards their awareness on basics of Computer. Therefore the formulated Null Hypothesis is accepted.

HYPOTHESIS-4: There is no significance difference between Secondary school students of boys and girls with respect to their awareness on MS-Word.

Table:-4
Shows awareness on M.S Word among Secondary schoolboys and Girls

S.No.	Variable	Mean	SD	t' Value	LOS
1	Boys	3.17	1.27	2.37*	S
2	Girls	2.62	1.27		

*Significant at 0.01 level

The above table shows that the mean score of Boys and Girls are 3.17, 2.62. The SD values of the Boys and girls are the 1.27, 1.27 respectively.

The calculated' value 2.37 is less than the table value (2.60) at 0.01 level, so there is a significance difference between Boys and Girls towards their awareness on M.S Word. Therefore the formulated Null Hypothesis is rejected.

HYPOTHESIS-5: There is no significance difference between Secondary school students of Government school and private school with respect to their awareness on MS-Word.

Table:-5
Shows awareness on MS-Word among Secondary school students of Government and Private Schools

S.No	Variable	Mean	SD	t' Value	LOS
1	Government	2.77	1	1.361*	N.S
2	Private	3.06	1.51		

*Not significant at 0.05level

The above table shows that the mean score of Government school students and private school students are 2.77, 3.06. The SD values of the Government school students and private school students are the 1, 1.51 respectively.

The calculated' value 1.361 is less than the table value (1.98) at 0.05 level, so there is no significance difference between Government School students and Private School students towards their awareness on MS Word. Therefore the formulated Null Hypothesis is accepted.

HYPOTHESIS-6: There is no significance difference between Secondary school students of Telugu medium and English medium with respect to their awareness on MS-Word.

Table:6
Shows awareness on MS-Word among Secondary school students of Telugu Medium and English Medium Schools

Sno.	Variable	Mean	SD	t' Value	LOS
1	Telugu	2.33	1.06	5.6*	S
2	English	3.47	1.24		

*   Significant at 0.01 level

The above table shows that the mean score of Telugu medium students and English medium students are 2.33, 3.47. The SD values of Telugu medium students and English medium students are the 1.06, 1.24 respectively.

The calculated' value 5.6 is greater than the table value (2.617) at 0.01 level, so there is a significance difference between Telugu medium students and English medium students towards their awareness on M.S. Word. Therefore the formulated Null Hypothesis is rejecte

HYPOTHESIS-7: There is no significance difference between Secondary school students of boys and girls with respect to their awareness on MS-Excel.

Table:-7
Shows awareness on MS-Excel among Secondary school boys and Girls

S.No.	Variable	Mean	SD	t' Value	LOS
1	Boys	2.84	1.31	3.18*	S
2	Girls	2.16	1.06		

*Significant at 0.01 level

The above table shows that the mean score of Boys and Girls are 2.84, 2.16. The SD values of the Boys and girls are the 1.31, 1.06 respectively.
The calculated 't' value 3.18 is greater than the table value (2.61) at 0.01 level, so there is a significance difference between Boys and Girls towards their awareness on M.S Excel. Therefore the formulated Null Hypothesis is rejected.

HYPOTHESIS-8: There is no significance difference between Secondary school students of Government school and private school with respect to their awareness on MS-Excel.

Table:-8
Shows awareness on MS-Excel among Secondary school students of Government and Private Schools

S.No.	Variable	Mean	SD	t' Value	LOS
1	Government	2.21	1.32	2.74*	S
2	Private	2.81	1.07		

*Significant at 0.01 level

The above table shows that the mean score of Government school students and Private School students are 2.21, 2.81. The SD values of the Government school students and Private school students are the 1.32, 1.07 respectively.
The calculated 't' value 2.74 is greater than the table value (2.61) at 0.01 level, so there is no significance difference between Government school students and Private school students towards their awareness on M.S Excel. Therefore the formulated Null Hypothesis is rejected

HYPOTHESIS-9: There is no significance difference between Secondary school students of Telugu medium and English medium with respect to their awareness on MS-Excel.

Table:9
Shows awareness on MS-Excel among Secondary school students of Telugu Medium and English Medium Schools

S.No.	Variable	Mean	SD	t' Value	LOS
1	Telugu	2.83	1.18	4.07*	S
2	English	2.94	1.13		

*Significant at 0.01 level

The above table shows that the mean score of Telugu medium and English medium students are 2.83, 2.94. The SD values of the Telugu medium and English medium students are the 1.18, 1.13 respectively.
The calculated 't' value 4.07 is greater than the table value (2.61) at 0.01 level, so there is a significance difference between Telugu medium and English medium students towards their awareness on M.S Excel. Therefore the formulated Null Hypothesis is rejected

HYPOTHESIS-10: There is no significance difference between Secondary school students
of boys and girls with respect to their awareness on MS-PowerPoint.

Table: -10
Shows awareness on MS-PowerPoint among Secondary school boys and Girls

S.No.	Variable	Mean	SD	t' Value	LOS
1	Boys	3.25	1.28	4.07*	S
2	Girls	2.77	1.11		

*Significant at 0.01 level

The above table shows that the mean score of Boys and Girls are 3.25, 2.77 The SD values of the Boys and Girls are 1.28, 1.11 respectively.

The calculated 't' value 4.07is greater than the table value (2.61) at 0.01 level, so there is a significance difference between Boys and Girls towards their awareness on M.S PowerPoint Therefore the formulated Null hypothesis is rejected

HYPOTHESIS-11: There is no significance difference between Secondary school students of Government school and private school with respect to their awareness on MS-PowerPoint.

Table:-11

Shows awareness on MS-PowerPoint among Secondary school students of Government and Private Schools

S.No.	Variable	Mean	SD	't' Value	LOS
1	Government	2.72	1.32	2.77*	S
2	Private	3.2	1.04		

*Significant at 0.01 level

The above table shows that the mean score of Secondary school students of Government and private schools are 2.72, 3.2. The SD values of the Secondary school students of Government and private schools the 1.32, 1.04 respectively.

The calculated 't' value 2.77 is greater than the table value (2.61) at 0.01 level, so there is a significance difference between Secondary school students of Government and private schools towards their awareness on MS-PowerPoint. Therefore the formulated Null Hypothesis is rejected.

HYPOTHESIS-12: There is no significance difference between Secondary school students of Telugu medium and English medium with respect to their awareness on MS-PowerPoint.

Table:12

Shows awareness on MS-PowerPoint among Secondary school students of Telugu Medium and English Medium Schools

S.No.	Variable	Mean	SD	't' Value	LOS
1	Telugu	2.63	1.14	3.54*	S
2	English	3.38	1.18		

*Significant at 0.01 level

The above table shows that the mean score of Telugu medium and English medium are 2.63, 3.38. The SD values of the Boys and girls are the 1.14, 1.18 respectively.

The calculated 't' value 3.54 is greater than the table value(2.61) at 0.01 , so there is a significance difference Telugu medium and English medium students towards their awareness on M.S PowerPoint. Therefore the formulated Null Hypothesis is rejected.

HYPOTHESIS-13: There is no significance difference between Secondary school students of boys and girls with respect to their awareness on MS-Access.

Table:13

Shows awareness on MS-Access among Secondary school Boys and Girls

S.No.	Variable	Mean	SD	't' Value	LOS
1	Boys	2.81	1.44	3.77*	S
2	Girls	1.91	1.19		

*Significant at 0.05level

The above table shows that the mean score of Boys and Girls are 2.81, 1.91. The SD values of the Boys and girls are the 1.44, 1.19 respectively.

The calculated' value 3.77 is greater than the table value (2.61) at 0.01 level, so there is a significance difference between Boys and Girls towards their awareness on MS-Access. Therefore the formulated Null Hypothesis is rejected

VI. FINDINGS OF THE STUDY

✓ Majority of the Secondary school students of Khammam District have above average level of computer awareness.
✓ It is founded that there is no significance difference between Secondary schoolboy and girl students in awareness on basics of Computer awareness. However boy students are having an edge over the girl students.
✓ It is founded that there is no significance difference between Secondary school students of Government School and private school in awareness on basics of the computer. However government School Secondary school students are having an edge over Secondary school students from private school.
✓ It is founded that there is no significance difference between Secondary school students of Telugu medium and English medium in awareness on basics of the computer. However Telugu medium students are having an edge over students from English medium students.
✓ It is founded that there is a significance difference between Secondary schoolboy and girl students in awareness on MS-Word. Boy students are having an edge over the girl students.
✓ It is founded that there is no significance difference between Secondary school students of Government school and private school in awareness on MS-Word. However private school Secondary school students are having an edge over Secondary school students from Government school.
✓ It is founded that there is a significance difference between Secondary school students of Telugu medium and English medium in awareness on M.S-Word. However English medium students are having an edge over students from Telugu medium students.
✓ It is founded that there is a significance difference between Secondary schoolboy and girl students in awareness on MS-Excel awareness. However boy students are having an edge over the girl students.
✓ It is founded that there is no significance difference between Secondary school students of Government school and private school in awareness on MS-Excel. However private school Secondary school students are having an edge over Secondary school students from Government school.
✓ It is founded that there is a significance difference between Secondary school students of Telugu medium and English medium in awareness on basics of the com MS-Excel. However English medium students are having an edge over students from Telugu medium students.
✓ It is founded that there is a significance difference between Secondary schoolboy and girl students in awareness on MS-PowerPoint awareness. However boy students are having an edge over the girl students.
✓ It is founded that there is a significance difference between Secondary school students of Government school and private school in awareness on MS-PowerPoint. However Private School Secondary school students are having an edge over Secondary school students from Government School.
✓ It is founded that there is a significance difference between Secondary school students of Telugu medium and English medium in awareness on MS-PowerPoint. However English medium students are having an edge over students from Telugu medium students.
✓ It is founded that there is a significance difference between Secondary schoolboy and girl students in awareness on MS-Access awareness. However boy students are having an edge over the girl students.

VII. CONCLUSIONS OF THE STUDY

On the basis of the analysis of the data, the following conclusions were emerged. They are primarily with reference their gender, management of the school and medium of the instruction and impact on the computer awareness among Secondary school students of Khammam District of Telangana State. It is concluded that the computer awareness among the Secondary school students is at desired level. When we observe their scores is even that above statement proves is correct.

➢ It is concluded that the boy students are better than the girl students in their awareness on basics of computer.
➢ It is concluded that Government school Secondary school students are better than the Secondary school students from private school students in their awareness on basics of computer.
➢ It is concluded that Telugu medium students are better than English medium students in their awareness on basics of computer.
➢ It is concluded that the boy students are better than the girl students in their awareness on MS-Word
➢ It is concluded that Private Schools Secondary school student are better than Government School Secondary school students in their awareness on MS-Word.
➢ It is concluded that English medium Secondary school students are better than Telugu medium students in their awareness on MS-Word.
➢ It is concluded that the boy students are better than the girl students in their awareness on MS-Excel.
➢ It is concluded that private schools Secondary school student are better than Government School Secondary school students in their awareness on MS-Excel.

- ➢ It is concluded that English medium Secondary school students are better than Telugu medium students in their awareness on MS-Excel.
- ➢ It is concluded that the boy students are better than the girl students in their awareness on MS-PowerPoint
- ➢ It is concluded that private schools Secondary school student are better than Government school Secondary school students in their awareness on MS-PowerPoint.
- ➢ It is concluded that English medium Secondary school students are better than Telugu medium students in their awareness on MS-PowerPoint.
- ➢ It is concluded that the boy students are better than the girl students in their awareness on MS-Access.
- ➢ It is concluded that private schools Secondary school student are better than Government school Secondary school students in their awareness on MS-Access.
- ➢ It is concluded that English medium Secondary school students are better than Telugu medium students in their awareness on MS-Access.
- ➢ It is concluded that the boy students are better than the girl students in their awareness on Internet.
- ➢ It is concluded that private schools Secondary school student are better than Government school Secondary school students in their awareness on Internet.
- ➢ It is concluded that English medium Secondary school students are better than Telugu medium students in their awareness on Internet.

Educational Implications

A student enters into school as a unique individual molded by genes, environment and a certain spark with him. However as he winds his way through the curriculum, frequently a desire to fit in to be like everyone. The importance of having computer awareness is very essential to every student from secondary level. The students must try to use computer and Internet in his learning process. It may very useful to get the broad knowledge about his subjects related and improve their skills also.

After completion of findings and conclusions I have suggested some following educational implications:
- ❖ Government school managements are focused in teaching computer knowledge.
- ❖ Majority of the Telugu medium schools are not having sufficient computers in lab it may effects in the process of learning computer.
- ❖ Private school management must focus on every student to improve their computer knowledge.
- ❖ Every school should motivate and create interest in students for learning computer knowledge.
- ❖ Every school should encourage students for learning through computer and Internet. It should be helpful to students for their higher studies academic achievements.

Suggestions for further study

The investigator feels that the dimensions in this requires for further after conducting the investigation to derive at more meaningful conclusions.
1. The same study may be extended to the students of other schools.
2. The experimental study may conduct on students based on their computer lab operation strategy.
3. The study may be conducted taking a large sample to generalize the conclusion area.
4. The Similar study may be conducted to other districts.

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