Computer Attitude among Higher Secondary School Students

Sunita Yadav

Student, Mater of Education (M.Ed.) Department of Education, Mangalayatan University, Aligarh, Uttar Pradesh

ABSTRACT

The aim of this survey is to determine the attitudes of higher secondary school students toward computers. Two hundred secondary school students from the Amroha district of UP were used as participants in this research. They were picked in a completely random manner. In this investigation, "Computer Attitude" was measured using the Computer Attitude Scale. Mean, standard deviation, and t-tests were used in addition to descriptive statistics. The research showed that all of the higher school students in the sample had a favorable view of computers. There was no statistically significant difference between boys and girls in using computers. There was no discernible distinction between science & art students towards computer attitude of higher secondary schools. Students in urban and rural areas do not vary much in their perspectives on computers. Neither government nor private school students have a noticeably different outlook on using computers.

Key Words: Computer, Computer attitude, Higher Secondary School Students

INTRODUCTION

"A computer an electronic device that follows instructions and performs arithmetic and logical operations." When first introduced to the educational system, computers sparked great hopes since they provided something that had previously been absent from other instruments. Former mediums, from the chalkboard to the television, served only as presenting aids. In addition to delivering data with the same audio-visual expressive potential as television or cinema, computers can also take in feedback and tailor their presentation to the individual. Similarly, in classrooms with Internet access, the computer serves as a communicator between the instructor and the student. The computer is a technology that has the ability to aid in revolution of classroom, which now involves a transition away towards frontal, interpretive, instructional demonstrations and toward environments in which learners are active inventors and builders of information.

The students are taught by engaging with a computer software. Based on predetermined educational standards, this software adapts to meet the requirements of each individual learner. As such, the student engages in a "remote dialog" with the program's creators, who, in a well-planned program, would have taken into account the learning challenges associated with the subjects covered and, in turn, devised a series of remedial interventions. There should have been development units included for those students who wanted to go above and beyond what was required. In this way, students may study at their own pace, regardless of who else is in the classroom. Individualized attention is given to each student, with specific solutions to their alleged issues and possibilities for in-depth study based on their own areas of curiosity.

In current study, Attitude refers to a psychological concept which is a range of human activity. In layman's terms, an attitude is the tendency of behaving into particular method in respond to a particular element. As students, we should cultivate a series of attitudes, such as attitudes toward our studies, ourself, friends, and classmates, and attitudes towards specific ideas and computer technology.

Wrightstone (1964) cited that attitudes are necessary in schooling and they have an effect on gaining knowledge of efficiency. If student has a positive attitude regarding computer science, they might not be attentive towards learning that adversely affects their learning efficiency. As learning effects in computer science are directly related to students' attitudes toward computers, attitudes towards computer were the independent variables in this study. According to **Woodrow (1991),** a students' attitudes toward computers is extremely important for the success of computer-based courses & curriculum. **Sam et al., 2005** agreed that monitoring on how people feel about using computers is essential for making the most of their potential as a learning tool.

Age & Gender **(Morris, 1988-1989),** also computer anxiety **(Paxton and Turner, 1984)** have been observed as connected with attitudes toward computers. As computers and technological applications spread more widely, many started to worry about how essential it would be to have basic knowledge of computers. Many schools made the decision to buy computers in response to the growing government awareness of the importance of computer literacy. While learning and design and production software continued to evolve **(Chambers and Sprecher, 1984**), Many additional forms of instructional software, such as simulation programs, modeling programs, and tool programs, have emerged independently from the original idea of replacing teachers. A successful digital learning environment will strike a balance between student-initiated discovery learning and self-directed inquiry, and more traditional forms of guided teaching and assessment that account for students' varying levels of knowledge, experience, and interest **(DeCorte, 1990).**

Awan (2012) conducted research upon "Students' Opinions & Experiences of Using Laptops & Computers into Classrooms in Dubai" and found students do not use laptops/computers frequently in educational institutions, but do use them extensively They are outside the educational environment of educational, social and informational activities. Students were able to identify the merits and demerits of using technology in the classroom. **Researcher, Tamer and Halim (2013)** conducted a study entitled "Computer use profiles and vocational school students' attitudes towards computers. They found that the computer settings and computer usage differed between years among of vocational students in computer-aided education. A Positive attitude can accelerate learning, student achievement, and improve program effectiveness and negative attitudes hamper accelerated learning, student achievement, and teacher improvement as well as program effectiveness.

According to **Smith et al., 2000a**, the term "computer attitude" refers to an individual's evaluation of, or overall distaste for, computers and computer use. **Binder and Niederle (2007)** explained that Attitudes are learnt, they can be moulded by experiencing the stimulus items & by interacting having institutions or social rules**.** Both **Gregorian et al., (1996)** and **Schacter (1999)** found that computer users had more optimistic views about learning and oneself. Specifically, attitudes are "learned predispositions to respond consistently favorably or adversely to certain things," as described by **Fishbein and Ajzen (1975)**. According to research by **Robinson et al., (1991)**, attitudes are far more malleable than personality characteristics, and people may change their perspectives over time and across contexts via interaction with the environment. A study by **Whitrow (1999)** indicated that students' perceptions of computers had a significant impact on their interest in learning about them, enrolling in classes on them, and ultimately choosing a career path that involves some aspect of computing. The way students feel about computers is also influenced by their level of familiarity and comfort with the technology **(Levine and Donitsa-Schmidt, 1997).**

Kose and Gezer (2006) showed that gender had no role in the attitude ratings of higher secondary school students. The lack of a gender gap in computer-related attitudes was also found in studies by **Hunt (1993)** and **Ceylan (2009)**. Both (**Dyck and Smither, 1994**) and (**Houle, 1996**) have supported this idea. **Mitra et al., (2000) and Smith (1986)** found that men and women alike believed in their own abilities to utilize computers effectively and confidently. There was no discernible gender gap in **Pope-Davis and Twing's (1991)** survey of computer attitudes.

In contrast , **Robertson et al., (1995) and Shashaani (1997)** reported that boys students have more positive attitudes toward computers than girls students. In several studies, boys are observed to be more enthusiastic attitudes about computer (**Ogilvie et al., and Liao, 1999) and** to relish working with them more (**Shashaani 1993**) and to demonstrate a greater level of interest in them (**Levin and Barry, 1997**). In contrast, girls tend to be less successful with computers and more stressed out using (**Sutton, 1991**).

According to **De Remer and lever et al., (1989**), girls have a more positive attitude towards computers than boys while **Shashaani et al., (2001)** found that the family's socioeconomic status has no effect on attitudes towards computer. The findings of **Gurpinder Singh (2019)** showed that there was no discernible difference in how students from urban and rural secondary schools felt about using technology**.**

NEED AND IMPORTANCE OF THE STUDY

In today's schools, learning how to use a computer is an essential element of the curriculum. In spite of their obvious importance, instructors often get little recognition for everything they do to the learning process. The way you feel about using a computer now matters more than ever. In the end, it's the instructor who will impart knowledge to the students.

A teacher's attitude regarding the usage of computers in the classroom has a significant impact on whether or not he embraces this technology. He/she will encourage the students to make use of computers. He/she will teach at class with the help of computers. On the other hand, if teacher is not very prompt towards technological changes in education, then he/she will avoid usage of computers into education; or will criticize use of computers into education.

He/she would think usage of computers into teaching as wastage of time. As a result, the technological development of education will suffer badly and quality of computer education would be poor. At present, computers have emerged in schools at all levels in increasing numbers. As education systems become remolded by technological innovations, teachers in these institutions are faced with need to gain knowledge and skills to survive in this renewed environment. Lack of such knowledge and skills is known to adversely affect the applicability of technological practice. Therefore, if teachers are expected to be effective users of computer, it is essential that they have positive attitudes in using computers.

Objective of Study
- To investigate the attitude towards computer of gender (boys and girls) differences in secondary schools students.
- Identify and analyze differences in computer-use attitudes between Arts and Science student populations.
- To compare and contrast the perspectives of secondary school students in urban and rural areas on the use of computers.
- To identify differences in computer attitudes between government and private school students in Amroha district UP.

Hypotheses of Study
- There won't be any discernible gender gap in how boys and girls feel about computer use.
- There will be no discernible difference in the way that Arts and Science students feel about utilizing computers.
- When it comes to how they feel about utilizing computers, students from rural and urban regions won't vary much.
- Students at government and private schools will not have notably different attitudes regarding computer use.

Delimitations of Study
- Study will be delimited to only secondary school students.
- The schools were selected mainly from West Uttar Pradesh.
- Only 200 students will be taken as a sample.
- The study will be delimited to 50 urban and 50 rural secondary school students.

METHODOLOGY AND RESEARCH DESIGN

Sample
A total of 200 high school students from various parts of the Amroha district in the Indian state of Uttar Pradesh were used as participants in this research. The current study's sample was chosen using a random sampling strategy. Fifty students from urban schools and fifty students from rural schools were chosen.

Statistical analysis Statistical Techniques Used
Descriptive statistical methods namely- Mean, S.D. were computed, „t‟- ratio was calculated.

RESULTS AND INTERPRETATION

Table-1: Showing Mean scores, SD, t-test and level of significance of attitude towards computer of girls & boys secondary school students

S. No.	N	Mean	S.D	t-test	Level of Significant
Boys	100	42.15	3.91	1.5067	Not significant
Girls	100	41.67	4.69		

According to Table 1, boys and girls secondary school students have mean score **42.15** and **41.67** respectively while their Standard deviation is as **3.91** and **4.69** respectively. Assuming a significance threshold of 0.01 for our data, we see that our "t-test" result, **1.5067**, is lower than the number in the table. Therefore, the computed value for difference in computer-positive attitudes between the boys and girls students is not statistically significant.
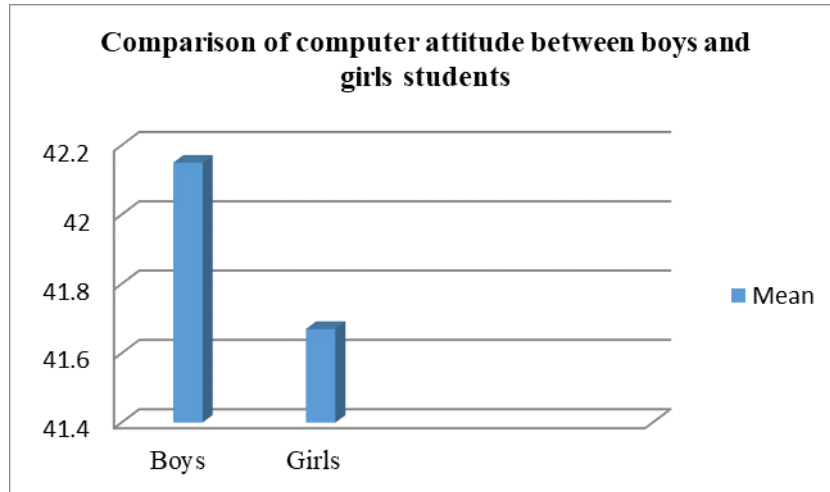
Figure 1: Showing the Mean scores of girls & boys secondary school student's attitude towards computer

Table-2: Showing the Mean scores, Standard deviation, t-ratio and level of significance of attitude towards computer of science and arts secondary school students.

S. No.	N	Mean	S.D	t-test	Level of Significant
Science	50	48.63	5.31	0.7723	Not significant
Arts	50	47.78	5.59		

According to Table 2, mean scores of science & arts secondary school students are **48.63** and **47.78** respectively while their Standard deviation is as **5.31** and **5.59** respectively. Deliberated value of "t-test" is 0.**7723** that is lesser than the table value at 0.01 levels of significance. Thus, calculated value is not significant, showing that there's no discernible divide in the way that Arts and Science students view computer usage.
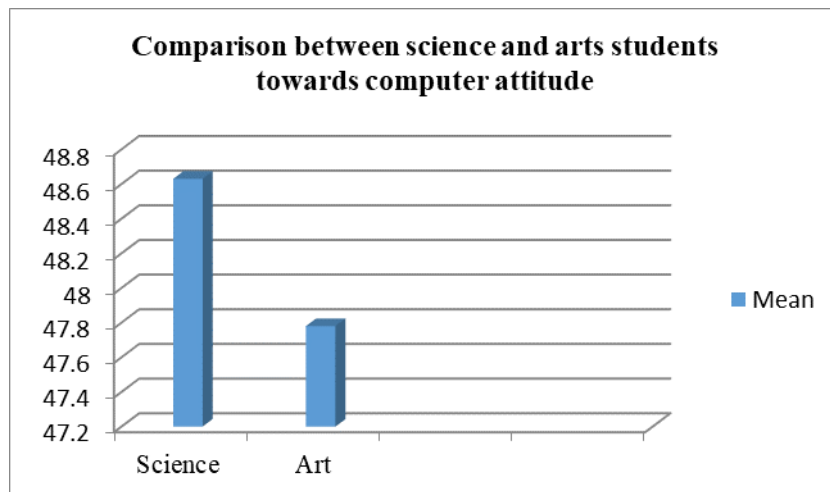

Figure 2: Showing Mean scores of science & arts secondary school student's attitude towards computer

Table-3: Showing Mean scores, Standard deviation, t-ratio and level of significance of attitude towards computer of rural and urban secondary school students.

S. No.	N	Mean	S.D	t-test	Level of Significant
Urban	50	41.18	4.7205	1.334	Not significant
Rural	50	39.87	5.1200		

Table 3 shows that the average and standard deviation for both urban & rural secondary school students are **41.18** and **39.87**, respectively. At the 0.01 level of significance, the estimated result of "t-test" is **1.334**, which is lower than the table value. Consequently, the estimated number is meaningless. This indicates that there is no discernible difference in how students in urban & rural secondary schools feel about using computers. So, the hypothesis is accepted.
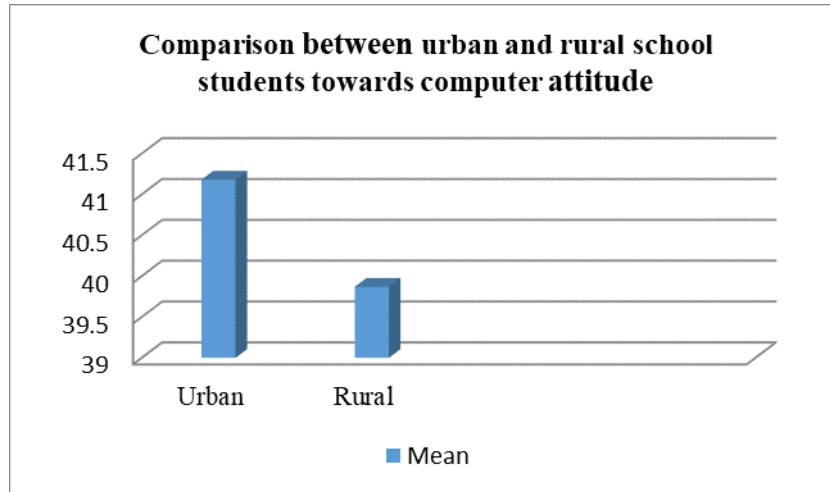
Figure 3: Showing the Mean scores of urban and rural secondary school student's attitude towards computer

Table-4: Showing the Mean scores, Standard deviation, t-ratio and level of significance of attitude towards computer of private & government secondary school students.

S. No.	N	Mean	S.D	t-test	Level of Significant
Government	100	42.38	3.790	1.4122	Not significant
Private	100	43.23	4.676		

Data from **Table 4** shows that both government and private secondary school students had similar average scores **(42.38 and 43.23)** but significantly different standard deviations (3.790 and 4.676). When compared to the value in the table at the 0.01 level of significance, the "t-test" result of **1.4122** is lower. The computed value here is meaningless. That government and private school children have similar views about computer usage is reflected in the findings.
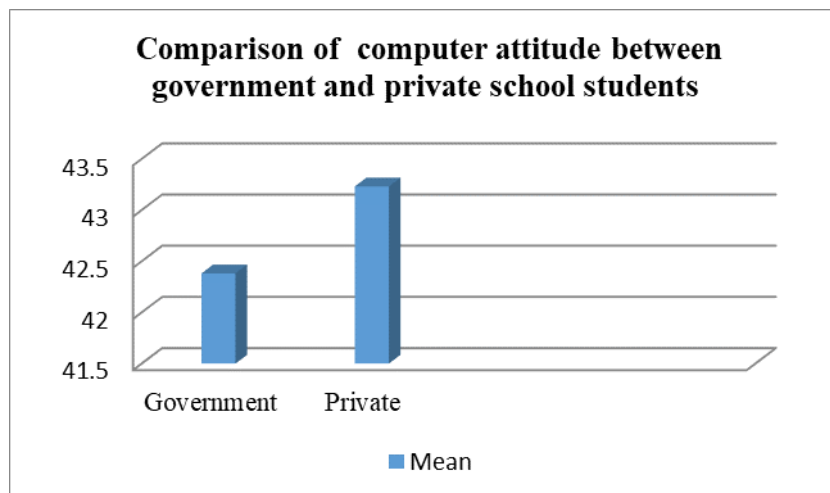

Figure 4: Showing Mean scores of private & government secondary school student's attitude towards computer.

CONCLUSION

The goal of the research was to find out how students in higher secondary schools feel about using computers. According to the findings, all the students in the survey had a favorable impression of computers. Student attitudes about computers are generally favourable across gender lines. The results showed that neither boys nor girls students in higher secondary schools had significantly different views on the computer. Computer is seen similarly well by both the scientific and arts communities. Both urban & rural secondary school students have positive views of computers. Neither government school nor private school students have a noticeably different outlook on using computers.

Educational Implications

Research findings may inform policymakers and educators on next initiatives :

1. Those who live in rural areas need more access to computer resources and education. So that perhaps they will be inspired to incorporate ICT with their lesson plans.
2. Next recommendation is that schools have enough of equipment.
3. Educators should inspire and encourage students to make use of computers in the classroom.
4. There should be widespread usage of computers by educators in the classroom. For the sake of making sure that the students are aware of the potential of computers in the classroom.
5. When using computers in the classroom, it is important for teachers to be able to critically evaluate the programs they are using.
6. The teacher's attitude toward the students is crucial (see point #6). Effective study skills instruction is provided to students.
7. Teachers and school administrators also have a responsibility to instil in children good habits for studying.

SUGGESTIONS FOR FURTHER STUDIES

A few suggestions for further research in the related area:

1. The present study is done in limited area only but same studies in other areas can be conducted.
2. A large sample can be used.
3. Other variables can be used
4. The present study may be extended to rural and urban area separately.
5. More variables can also be used in this study to bring improvement and betterment.
6. The study may be extended to a larger sample to provide more accurate results.

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