



GENDER DIFFERENCES IN COMPUTER ATTITUDE AMONG SECONDARY SCHOOL STUDENTS IN NORTH WEST DELHI

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Abstract

The purpose of the study was to ascertain the gender differences in computer attitude among secondary school students in North West Delhi. Descriptive research design was employed in this study where Computer Attitude Scale (CAS) developed and validated by Dr. Tahira Khaatoon and Manika Sharma (2011) was used to collect data from 150 students. The respondents were randomly selected from two private schools of North West Delhi. The scale contained 20 items in positive and negative statements form. It covering five affective dimensions- Computer Anxiety, Computer Confidence, and Computer as a useful Tool, Computer Interest and Computer Career. The reliability of the scale was found 0.93 by split half method. The data was analyzed using mean, SD and 't' test. The study revealed that no significant difference were found in mean scores on overall CAS and its four sub scales- Computer Interest, Computer Career, Computer Confidence and Computer as a useful Tool while significant difference was found in Computer Anxiety. The study recommends the students should be exposed more and more to computers so as to overcome the fear of using computers and get maximum benefit by using computer in their life.

Keywords: *gender differences, attitude, secondary school students*



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INTRODUCTION: The potential of computer as an effective instructional tool is very important aspects of any developing nation like India. Computer usage in secondary schools has made many positive impacts and developments into learning. A Computer is a general purpose device that can be programmed to carry out a finite set of arithmetic or logical operations. Since a sequence of operations can be readily changed, the computer can solve more than one kind of problem. Conventionally, a computer consists of at least one processing element and some form of memory. The processing element carries out arithmetic and logic operations, and a sequencing and control unit that can change the order of

operations based on stored information. Peripheral devices allow information to be retrieved from an external source, and the result of operations saved and retrieved.

In our social and professional lives computer is taking up a significant place. It also prevails over ever more aspect of our life. There is no denying the fact that the world itself is becoming technologically based from education to all sphere of our life. Computer education has been embraced as one of the most potent means to ensuring rapid socio-economic progress.

SIGNIFICANCE OF THE STUDY: In the present era, computer education demands every learner to use his or her ability to assimilate, evaluate and apply the available information through using computers. The computer technology has a deep impact on education. Computer education forms a part of the school and colleges curricula, as it is important for every individual today to have the basic knowledge of computers. The advantages of computers in education include an efficient storage and rendition of information, quick information processing and very importantly the savings of paper. Computer teaching plays a key role in the modern systems of education. Students find it easier to refer to the internet than searching the information in the fat reference books. The process of learning has gone beyond learning from prescribed textbooks. Today, aspirers can satiate their thirst for knowledge by means of the internet. It is easier to store information on computers than maintaining hand-written notes. Online education has revolutionized the education industry. The computer technology has made the dream of distance learning, a reality. Education is no more limited to classrooms. It has reached far and wide, thanks to the computer technology. Physically distant locations have come close to each other only due to computer networking. Computers facilitate an efficient storage and effective presentation of information. Presentation software like PowerPoint and animation software like flash and others can be of great help to the teachers while delivering information. Computers can turn out to be a brilliant aid in teaching. Computers facilitate an audio- video representation of information, thus making the process of learning interactive and interesting. Computer – aided teaching adds a fun element to education. Also, there has been no research conducted related to the computer attitude of secondary school students. This has provoked the researcher to take up this topic to conduct research. It becomes very essential for secondary school students to develop positive towards computer, without knowledge of the computer they cannot progress towards their ultimate goals of life. Moreover, without knowing their level of attitude towards computer education, it is not possible to make any policy regarding their education.

OPERATIONAL DEFINITIONS OF THE TERM USED

Computer - A computer is a programmable machine designed to automatically carry out a sequence of arithmetic or logical operations. The particular sequence of operations can be changed readily, allowing the computer to solve more than one kind of problem. Computer is an inseparable part of our Education System. It's a technological device consisting of hardware and software which can be used to enhance the academic skills, capacities and interest of the student.

Attitude - An attitude is a hypothetical construct that represents an individual's degree of like or dislike for something. Attitudes are generally positive or negative views of a person, place, thing, or event— this is often referred to as the attitude object. Attitude is a way of thinking about mental disposition of a person towards any object, person, institution etc.

Computer Attitude – The positive and negative attitude of the people towards computer is referred to as computer attitude. Computer attitudes are the attitudes of people have towards computers and their use.

Secondary School- A secondary school is a school which provides secondary education, between the ages of 11 and 16 or 11 and 18, after primary school and before higher education.

OBJECTIVES OF THE STUDY

Keeping the nature of the study, the objectives of the study were as follows:

1. To study the significant difference between boys and girls of secondary school students in their attitude towards computer.
2. To study the significant difference between boys and girls of secondary school students in their attitude towards computer anxiety.
3. To study the significant difference between boys and girls of secondary school students in their attitude towards computer confidence.
4. To study the significant difference between boys and girls of secondary school students in their attitude towards computer interest.
5. To study the significant difference between boys and girls of secondary school students in their attitude towards computer as a useful tool.
6. To study the significant difference between boys and girls of secondary school students in their attitude towards computer career.

HYPOTHESES OF THE STUDY

1. There is no significant difference between boys and girls of secondary school students on their attitude towards computer.
2. There is no significant difference between boys and girls of secondary school students in their attitude towards computer anxiety.
3. There is no significant difference between boys and girls of secondary school students in their attitude towards computer confidence.
4. There is no significant difference between boys and girls of secondary school students in their attitude towards computer interest.
5. There is no significant difference between boys and girls of secondary school students in their attitude towards computer as a useful tool.
6. There is no significant difference between boys and girls of secondary school students in their attitude towards computer career.

DELIMITATIONS OF THE STUDY

1. The study is delimited to secondary school students only.
2. The study is delimited on 150 students only.
3. The study is delimited only one variable computer attitude.

POPULATION AND SAMPLE: The population of the study constituted all the secondary school students of North West Delhi. The sample of the study consists of 150 secondary school students classified as 80 boys and 70 girls was selected randomly using purposive sampling techniques from North West Delhi. The age ranges from 14 years to 18 years having more or less similar socio economic status and educational background so as to maintain the homogeneity of the sample for the study.

TOOL: To measure the attitude towards computer, Computer Attitude Scale (CAS) developed and validated by Dr. Tahira Khatoon and Manika Sharma (2011) was used. The scale contained of 20 statements related to five areas namely Computer Anxiety, Computer Confidence, and Computer as a useful Tool, Computer Interest and Computer Career. These statements were related on five point scale. Nine statements are negative and eleven statements are positive. The five point scale used for evaluation is strongly disagreeing, agree undecided, disagree, and strongly disagree. Each type of response was ranges from strongly agree to strongly disagree for favourable statements and same was reversed for the unfavourable items. Reliability of the scale was found 0.86 by Split Half method.

PROCEDURE: The above mentioned scale was administrated on the selected sample with proper instruction. The obtained responses were served with the help of standard procedure given in the manual.

STATISTICAL TREATMENT OF THE DATA: The means and standard deviation of the scores obtained by the sample and its five sub-dimensions was computed directly from the respective raw scores. The test of significance was used ('t' test) in order to study if there was any significant difference between each selected pairs of the sub-dimensions in their attitude.

DATA ANALYSIS AND INTERPRETATION

TABLE 1: Showing Mean, SD and 't'-test of Secondary School Students' Attitude Towards Computer on the basis of Gender

Gender	N	MEAN	SD	SEd	C.R
Boys	80	84.15	5.55	0.92	1.40*
Girls	70	82.85	5.80		

*Not Significant at 0.01 and 0.05 level of significance

Table 1 show that the secondary school students do not differ in their attitude towards computer on the basis of gender. The calculated t- value (1.40), which is not significant at 0.01 and 0.05 levels, thus it is found that there is no significant difference between boys and girls students in their attitude towards computer. Hence, the stated hypothesis is accepted.

TABLE 2: Showing Mean, SD and 't'-test of Secondary School Students' Attitude Towards Computer Anxiety on the basis of Gender

Gender	N	MEAN	SD	SEd	C.R
Boys	80	17.0	1.5	0.28	3.48*
Girls	70	16.0	2.0		

*Significant at 0.01 and 0.05 level of significance

Table 2 shows that the secondary school students do not differ in their attitude towards computer anxiety on the basis of gender. The calculated t- value (3.48), which is significant at 0.01 and 0.05 levels, thus it is found that there is significant difference between boys and girls students in their attitude towards computer anxiety. Hence, the stated hypothesis is rejected.

TABLE 3: Showing Mean, SD and 't'-test of Secondary School Students' Attitude Towards Computer Confidence on the basis of Gender

Gender	N	MEAN	SD	SEd	C.R
Boys	80	16.75	1.7	0.26	0.56*
Girls	70	16.9	1.5		

*Not Significant at 0.01 and 0.05 level of significance

Table 3 shows that the secondary school students do not differ in their attitude towards computer confidence on the basis of gender. The calculated t- value (0.56), which is not significant at 0.01 and 0.05 levels, thus it is found that there is no significant difference between boys and girls students in their attitude towards computer confidence. Hence, the stated hypothesis is accepted.

TABLE 4: Showing Mean, SD and 't'-test of Secondary School Students' Attitude Towards Computer Interest on the basis of Gender

Gender	N	MEAN	SD	SEd	C.R
Boys	80	17.0	2.2	0.35	0.99*
Girls	70	16.65	2.1		

* Not Significant at 0.01 and 0.05 level of significance

Table 4 shows that the secondary school students do not differ in their attitude towards computer interest on the basis of gender. The calculated t- value (0.99), which is not significant at 0.01 and 0.05 levels, thus it is found that there is no significant difference between boys and girls students in their attitude towards computer interest. Hence, the stated hypothesis is accepted.

Table 5: Showing Mean, SD and 't'-test of Secondary School Students' Attitude Towards Computer as a Useful Tool on the basis of Gender

Gender	N	MEAN	SD	SEd	C.R
Boys	80	16.88	1.9	0.34	0.58*
Girls	70	16.90	2.3		

*Not Significant at 0.01 and 0.05 level of significance

Table 5 shows that the secondary school students do not differ in their attitude towards computer as a useful tool on the basis of gender. The calculated t- value (0.58), which is not significant at 0.01 and 0.05 levels, thus it is found that there is no significant difference between boys and girls students in their attitude towards computer as a useful tool. Hence, the stated hypothesis is accepted.

Table 6: Showing Mean, SD & 't'-test of Secondary School Students' Attitude towards Computer Career on the basis of Gender

Gender	N	MEAN	SD	SEd	C.R
Boys	80	16.95	1.3	0.25	0.77*
Girls	70	16.75	1.85		

* Not Significant at 0.01 and 0.05 level of significance

Table 6 shows that the secondary school students do not differ in their attitude towards computer career on the basis of gender. The calculated t- value (0.77), which is not significant at 0.01 and 0.05 levels, thus it is found that there is no significant difference between boys and girls students in their attitude towards computer career. Hence, the stated hypothesis is accepted.

DISCUSSION AND CONCLUSION: After analysis of the data collected, it has been found that the entire, sample of secondary school students' attitude towards computer are favourable. It has been found that the attitude scores of students towards computer did not change according to gender. Both boys and girls students attitude towards computer are favourable. This confirms previous findings by Syed Noor Ul Amin (2014), Sharma and Jasvbir (2013) and Tamer Kutluca (2011) who demonstrated that secondary school students

attitude scores did not vary according to gender. While gender differences were found in computer anxiety. Because, most of the girls are keen interested in computer as well as opting it as career. It is important for the students to possess positive computer attitude so that they can utilise their skill in global era. The implications of the results of this study are very useful for teachers, parents, educators, policy makers, curriculum developers and in the field of information and communication technology.

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