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## The Attitude of Pupil Teachers Towards Computers

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### ABSTRACT

The present research paper explored and compared the attitude of pupil teachers toward computers. The sample of the study was taken from Self-financed B.Ed. Colleges and Departments of Uttarakhand. In order to compare the attitudes, the three null hypotheses were framed and tested. A descriptive Survey Method was employed. A computer attitude scale developed by Sharma & Khatoon was administered to the selected sample. The data was collected and analyzed. The findings of the study indicated a significant difference in the attitude toward computers between Urban and Rural pupil teachers. A significant difference was also found between Science Stream and Humanities Stream pupil teachers in their computer attitude. The study further revealed that gender has no effect on computer attitude.

**Keywords:** Urban Pupil Teachers, Rural Pupil Teachers, Computer Attitude, Science and Humanities Streams.

### Introduction

Today's generation is born in the digital age and is more intelligent than the children born two decades ago. Pro-digitalized policies of the government created an environment and space in which the citizens of the country are bound to use digital platforms to get their routine work done. There is no escape to the digital world. The tremendous emphasis on artificial intelligence, cloud computing, blockchain, and quantum computing represents the future of technology - these systems are expected to be exponentially faster and more powerful than even the highest-performing supercomputers in operation today. In such a space, the present generation is competitive and advanced in technology. The children at the mere age of seven are learning computer coding. This new environment is posing a threat to prospective teachers as they may not have much knowledge of the use of technology. The prospective teachers must make themselves tech-savvy in order to do the teaching business in the classroom. The present paper tried to compare and explore the attitude of prospective teachers towards the use of computers.

### Review of Related Literature

**Rajasekar (2002)** conducted a study titled- Cognitive and affective attitude of teachers towards the computer and revealed that most of the students were having a positive attitude toward computers. The study further reported that the locale of students had no impact on their computer attitude.

**Rajasekar (2005)** conducted a study titled- University Students' Attitude towards the Computer and reported that different streams of students had no role to play.

**Teo (2008)** conducted a study titled- Pre-service Teachers' attitudes towards Computer Use and reported that there were no significant differences in computer attitudes on the basis of gender.

**Rani and Deswal (2015)** conducted a study titled- Attitude of prospective teachers towards the Use of Computers in Education in Relation to certain demographic variables and reported that streams of students had no influence on their computer attitudes.

**Bhat and Wani (2016)** conducted a study titled- Science and Art Students' Attitude towards information technology and Relationship with their academic performance and revealed that stream had no significant impact on their computer attitudes.

**Saini and Kaur (2018)** conducted a study titled- Internet Usage in Relation to the social competence of secondary school students and reported that the internet usage of male students is significantly more than that of female students and the internet usage of urban students is significantly more than that of rural students. Further, the findings revealed that there was a significant difference between the Social competence scores of secondary school students having low, high, and average internet usage levels. But there is no significant difference between the social competence scores of students from the different subgroups formed with the interaction effect of Internet usage levels, gender, and locale. A significant negative relationship was found between internet usage and social competence.

**Shahida and Sagar (2019)** conducted a study titled- A study of internet usage by secondary school students and revealed that there was a significant difference between the internet usage of U.P. Board students & C.B.S.E. Board student and U. P. Board boys & girls. But no significant difference was found between C.B.S.E. Board boys and girls.

**Saini and Kaur (2020)** conducted a study titled- Internet Usage in Relation to the parenting styles of secondary school students and reported that Parenting Styles exert a significant impact on the Internet Usage of secondary school students. The Autocratic, Over Demanding, Over Protecting and Rejecting Parenting Style exerts a significant positive impact on the Internet Usage of secondary school students whereas the Accepting and Democratic Parenting Style exerts a significant negative impact on the Internet Usage of secondary school students. It indicates that the strict, harsh, warm, and over-controlling attitude of parents encourages the children to excessive non-essential use of the Internet whereas parental warmth, affection, care, concern, and appropriate discipline help in governing the excessive non-essential Internet Usage of their children.

**Niragudi (2021)** conducted a study titled- B.A. degree students' attitude towards computer-based testing and reported that gender had an influence on attitude toward computers. The male students' attitude was significantly better than that of female students' attitude towards computer-based testing.

**Rao and Saxena (2021)** conducted a study titled-A Study of the Relationship between Internet Usage and emotional maturity of higher secondary students and reported that students who belonged to urban areas had better emotional maturity than students who belonged to rural areas. In the study, it is also found that there was a positive relationship between emotional maturity and internet usage.

**Thapliyal (2022)** conducted a study titled- The Attitude of Prospective Teachers Towards Computer & Computer Usage and indicated a significant difference in the attitude toward computer and computer usage between Urban and Rural prospective teachers. A significant difference was also found between Science Stream and Humanities Stream prospective teachers in their computer attitude. Gender-wise, the study revealed that there existed no significant difference in Computer Attitude.

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### Objectives of the Study

1. To compare the attitude towards computers between Male and Female pupil teachers.
2. To compare the attitude towards computers between Urban and Rural pupil teachers.
3. To compare the attitude towards computers between Science Stream and Humanities Stream pupil teachers.

### Hypotheses of the Study

1. There exists no significant difference in the attitude towards computers between Male and Female pupil teachers.
2. There exists no significant difference in the attitude towards computers between Urban and Rural pupil teachers.
3. There exists no significant difference in the attitude towards computers between Science Stream and Humanities Stream pupil teachers.

### Delimitation of the Study

1. The research was delimited to six Self-financed B.Ed. Colleges of Uttarakhand.
2. The study was delimited to 400 pupil teachers.
3. The study was delimited to Computer Attitude as measured by the scale developed and standardized by Sharma & Khatoon.

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### Methodology of the Study

The descriptive Survey Method was used in the present study.

#### Sample of the Study

The sample of the research consisted of seven Self-Financed B.Ed. colleges of Uttarakhand. The selection of the B.Ed. colleges were done purposively. Each college contained 100 pupil teachers. The sample colleges were provided with google forms to collect the data. The total number of Google Forms filled was 426 and out of which 26 were rejected. Therefore, a total of 400 prospective teachers were finally considered for data analysis. By analyzing Google Forms, it was found that 156 prospective teachers were male and 244 were female; 230 were urban and 170 were rural; 220 were from the humanities stream and 180 were from the science stream.

#### Research Tools Used

A tool of Computer Attitude developed and standardized by Sharma & Khatoon was used to compare students' attitudes toward computers.

#### Scoring Procedure

The Computer Aptitude Scale is a self-administering scale with 20 items. The scale has 11 positive and 9 negative items distributed in five areas (Computer Anxiety, Computer Confidence, Computer Interest, Computer as a useful Tool, and Computer Career) having 4 items each. It is a five-point Likert-type

rating scale. It was administered and Positive items were scored 5 to 1 viz. 5 for Strongly Agree, 4 for Agree, 3 for Undecided, 2 for Disagree, and 1 for Strongly Disagree, and scoring was reversed for Negative items. The range of the tool was 20-100. The sum total of the scores on all 20 items becomes the Computer Aptitude scores of the respondents.

### Collection of Data

The data for the research was collected by administering the 'Computer Attitude Scale' to B.Ed. students through Google Forms. The head of the B.Ed. departments of self-financed courses of selected colleges were contacted. They were requested to share the 'Computer Attitude Scale' Google form through B.Ed. students' WhatsApp group created by the colleges for communication. The Google Form contained a note for students regarding the research's ethical part and through which they were informed that their participation was voluntary and confidential. The information provided would be used only for research purposes.

### Statistical Techniques Used

Descriptive statistics such as Mean and Standard Deviations were used along with inferential statistics (t-test) were used.

### Results and Discussions of the Study

The findings of the study are reported and discussed below with the help of three tables.

**Table -1**

#### The difference in the mean scores of the Computer Attitude between Male and Female pupil teachers

Groups	No	Mean	S.D.	t-ratio	Result
Male Pupil Teachers	156	88.10	6.90	1.58	<b>Not Significant</b>
Female Pupil Teachers	244	86.90	8.10		

An independent samples t-test was used to test the first hypothesis. Table 1 shows that the mean score of the male pupil teachers is 88.10 with S.D. 6.90 whereas the mean score of female pupil teachers is 86.10 with S.D. 8.10. The t-ratio is calculated as 1.58 which is not significant at 0.05 level. The first null hypothesis therefore cannot be rejected. This shows that there exists no significant difference in the attitude towards computers between Male and Female pupil teachers. The result of the study is supported by the study conducted by Poonam (2022). The result of the study is contradicted by the studies conducted by Teo (2008), and Saini and Kaur (2018).

**Table-2**

#### The difference in the mean scores of the Computer Attitude between Urban and Rural pupil teachers.

Groups	No	Mean	S.D.	t-ratio	Result
Urban Pupil Teachers	230	87.30	8.20	3.88	<b>Significant</b>
Rural Pupil Teachers	170	84.20	7.60		

An independent samples t-test was used to test the second hypothesis. Table 2 shows that the mean score of urban pupil teachers is 87.30 with S.D. 8.20 whereas the mean score of male students is 84.20 with S.D. 7.60. The t-ratio is calculated as 3.88 which is significant at 0.05 level. The second null hypothesis therefore cannot be accepted. This indicates that there exists a significant difference in the attitude towards computers between Urban and Rural pupil teachers. It indicates that locale-wise differences in the attitude towards computers are significant. Since the mean scores of the attitude towards computers of Urban pupil teachers is more than their counterparts in Rural areas, therefore, Urban area pupil teachers are having more inclination towards computers. The result of the study is supported by the studies conducted by Poonam (2022), and Niragudi (2021). The result of the study is contradicted by the study of Rajasekar (2002).

**Table-3**

#### The difference in the mean scores of the Computer Attitude between Science Streams and Humanities Stream pupil teachers.

Groups	No	Mean	S.D.	t-ratio	Result
Science Stream Pupil Teachers	180	88.30	8.60	3.81	<b>Significant</b>
Humanities Stream Pupil Teachers	220	85.20	8.10		

An independent samples t-test was used to test the third hypothesis. Table 3 shows that the mean score of Science Stream pupil teachers is 88.30 with S.D. 8.60 whereas the mean score of Humanities Stream pupil teachers is 85.20 with S.D. 8.10. The t-ratio is calculated as 3.81 which is significant at 0.05 level. The second null hypothesis therefore cannot be accepted. This indicates that there exists a significant difference in the Computer Attitude between Science Streams and Humanities Stream pupil teachers. It reflects that stream-wise differences in Computer Attitude are significant. Since the mean score of Science Stream pupil teachers is more than that of their counterparts, therefore, Computer Attitude of Science Stream pupil teachers is better as compared to pupil teachers of Humanities Stream. The result of the study is supported by the study conducted by Poonam (2022). The result of the study is contradicted by the studies of Rajasekar (2005), Rani, and Deswal (2015), and Bhat and Wani (2016).

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## Educational Implications

The advent of 5G and its impact on the teaching-learning process is the most discussed topic nowadays. Virtual reality is a reality now. The virtual news T.V. anchors are already at work. Soon virtual teachers will follow. In this age of the digital revolution, it's high time that pupil teachers be trained in computer technology. The present research reflected that the soon-to-be teachers are having good computer attitudes. The educational authorities, planners, and educationists should use this opportunity to start computer-related programs at teacher education institutes. The pupil teachers are aware of the usefulness of computers in every walk of life, therefore, they must be provided ample opportunities for developing their computer skills. It was found that Science Stream pupil teachers are having a more favorable attitude toward computers, therefore, more interesting opportunities should be provided for the Humanities group of students to arouse their interest in computers. Similarly, Rural background students also need to be trained in developing computer-related skills.

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