

# **Attitude of Adolescent School Students Towards Online Learning And Its Relationship With Their Academic Achievement Through Online Learning**

**Dr Usha Parvathy**

*Associate Professor, Sree Narayana College of Education, Muvattupuzha, Kerala, India*

**Vidya Rajendran**

*Post Graduate Student, Sree Narayana College of Education, Muvattupuzha, Kerala, India*

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**Abstract:** The teaching – learning process is shifted to on line mode due to Covid pandemic. This study is conducted to assess the attitude of Adolescent school students towards online learning and its relationship with their academic achievement through online learning. The sample was 100 Adolescent students. The students were selected from class 12 randomly. Online survey using whatsapp was used to collect the data for the study. The tool used was an Attitude Scale prepared by the investigators. The scores of examination conducted online were collected to analyze the Academic achievement of students. Suitable statistics was used to analyze the data. The results indicate that there is a positive correlation between the two variables.

**Key words:** Attitude, Online learning, Academic achievement through online learning

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Date of Submission: 09-02-2022

Date of Acceptance: 23-02-2022

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## **I. INTRODUCTION**

Online learning provides a unique way for students to continue, expand or enhance their education. Online learning offers students the ability to engage in learning opportunities they have not accessed before. It allows students to attend classes from home and other locations. A Comparative Analysis of Student Performance in an Online vs. Face-to-Face Environmental Science Course from 2009 to 2016 was done by Paul and Jefferson (2019) and the results show there is gender difference on student performance between online and Face-to-Face students and there is no statistically significant difference between the two groups in terms of performance scores. An experimental study was carried out to study the effectiveness in learning of tenth grade students in Physics, when taught through online and face-to-face by Baig (2011). A high score in achievement among students taught and studied through online tools and online learning environment was found through this research. Zalat, Hamed & Bolbol (2021) conducted a study entitled ‘The experiences, challenges, and acceptance of e-learning as a tool for teaching during the COVID-19 pandemic among university medical staff’. This study found that the majority (88%) of the staff members agreed that the technological skills of giving the online courses increase the educational value of the experience of the college staff. The rate of participant agreement on perceived usefulness, perceived ease of use, and acceptance of e-learning was (77.1%, 76.5%, and 80.9% respectively). The highest barriers to e-learning were insufficient/ unstable internet connectivity (40%), inadequate computer labs (36%), lack of computers/ laptops (32%), and technical problems (32%). Younger age, teaching experience less than 10 years, and being a male are the most important indicators affecting e-learning acceptance. Naik, Deshpande, Shivananda, Ajey, & Manjunath (2021) conducted a study entitled ‘Online Teaching and Learning of Higher Education in India during COVID-19 Emergency Lockdown’. This study found that more than 60% of the students are not ready (due to lack of technical, infrastructural, and high-speed internet access, and power supply, limited network data per day) for the online classes. Survey indicated that the online sessions of problematic subjects are difficult, but theoretical subjects are easy to understand. Most of the students felt that Morning 8-12 time is effective for conducting the online teaching. Khan, Vivek, Nabi, Khojah, & Tahir (2021) conducted a study entitled ‘Students’ Perception towards E-Learning during COVID-19 Pandemic in India: An Empirical Study’. The findings of the study reveal students have positive perception towards e-learning and thus there is acceptance among students.

The country is keeping a social distance to prevent the spread of Covid. The stress and strain of being at home during this crisis can lead children astray. The fact that we are able to engage students in online curricular and extra-curricular activities is a great achievement of the Education sector. The success of online learning is due to the fact that in addition to making learning possible, it can also reduce the stress of children to

some extent. Virtual class rooms can help children create the atmosphere of the original classroom and keep them interested in learning.

In this situation this survey was conducted by selecting 100 Adolescent school students. The data was used to study the relationship between their attitude towards online learning and their Academic achievement through on line learning.

## II. METHODOLOGY

2.1: **Method** - Online survey using whatsapp was used for the study.

2.2: **Tools** - The tool used for this study was an attitude scale with 22 items prepared by the investigators. Five options were given for each item which was highly positive, positive, neutral, negative and highly negative. Highly positive option carries five marks, positive option carries four marks, neutral option carries three marks, negative option carries two marks and highly negative option carries one mark.

The response was marked in the column provided. Mark lists of online exam were collected to analyze the Academic achievement of students.

2.3: **Sample** - A sample of 100 Adolescent school students from the state of Kerala in India was selected randomly for the study. Class twelve students were selected for the study.

2.4: **Statistics** - The statistics used for this study were Mean, Standard deviation, correlation and Chi- square.

The equations used are given below:

$$(i) \quad \bar{X} = \frac{\Sigma X}{N} \quad (\text{Koul, 2009})$$

- Where  $\bar{x}$  is the arithmetic mean,  $\Sigma X$  is the sum of all the scores and N is the number of scores.

$$(ii) \quad \sigma = \sqrt{\frac{\Sigma(X-\bar{X})^2}{N}} \quad (\text{Best, 2005})$$

- Where  $\sigma$  is the standard deviation,  $\Sigma(X - \bar{X})^2$  is the sum of squared deviation of the scores from arithmetic mean and N is the number of scores.

$$(iii) \quad r = \frac{\Sigma(x-\bar{x})(y-\bar{y})}{\sqrt{\Sigma(x-\bar{x})^2 \Sigma(y-\bar{y})^2}} \quad (\text{Sharma, 2012})$$

- Where r is the product moment correlation coefficient.

(iv) Chi-square Test

$$\chi^2 = \Sigma \left[ \frac{(f_o - f_e)^2}{f_e} \right] \quad (\text{Koul, 2009})$$

- Where  $\chi^2$  is the chi-square,  $f_o$  is the frequency of occurrence of observed or experimentally determined facts and  $f_e$  is the expected frequency of occurrence.

## III. OBJECTIVES OF THE STUDY

- To find out the Attitude of Adolescent school students towards Online learning
- To find out the Academic achievement of Adolescent school students through online learning
- To find out the relationship between the Attitude of Adolescent school students towards online learning and their Academic achievement through online learning in the total sample and sub sample based on gender.
- To find out the relationship between Adolescent school students belonging to different levels on the basis of attitude towards online learning and their Academic achievement through online learning in the total sample

## IV. HYPOTHESES OF THE STUDY

- There is a significant relationship between the Attitude of Adolescent School students towards online learning and their Academic achievement through online learning in the total sample and sub sample based on gender.
- There is a significant relationship between Adolescent School students belonging to different levels on the basis of Attitude towards online learning and their Academic achievement through online learning in the total sample

**V. ANALYSIS AND INTERPRETATION OF DATA**

Table – 1

*Relationship between the Attitude of Adolescent School students towards Online learning and their Academic achievement through online learning in the total sample*

Variables	No	Mean	SD	r	Level of significance
Attitude towards online learning of Adolescent School students	100	78.17	10.4176	0.702	p < 0.01
Academic achievement through online learning of Adolescent School students.		152.1	38.81336		

Table – 1 show that the correlation values between the attitude of Adolescent school students towards online learning and their academic achievement is 0.7 and it is found to be significant at 0.01 level of significance. This indicates that there is a significant, positive relationship between the attitude of Adolescent school students towards online learning and their academic achievement through online learning.

Table – 2

*Relationship between the Attitude of male Adolescent school students towards online learning and their Academic achievement through online learning*

Variables	No	Mean	SD	Correlation	Level of significance
Attitude towards online learning of male Adolescent School students	57	75.281	10.267	0.659	p < 0.01
Academic achievement through online learning of male Adolescent School students.		143.368	34.967		

Table – 2 show that the correlation value between the attitude of male Adolescent school students towards online learning and their academic achievement is 0.659 and is found to be significant at 0.01 level of significance. This indicates that there is a significant, positive relationship between the attitude of male Adolescent school students towards online learning and their academic achievement through online learning.

Table – 3

*Relationship between the attitude of female Adolescent School students towards online learning and their academic achievement through online learning*

Variables	No	Mean	SD	Correlation	Level of significance
Attitude towards online learning of female Adolescent School students	43	82	9.428932	0.71	p < 0.01
Academic Achievement through online learning of female Adolescent School students.		163.6744	36.84893		

Table – 3 show that the correlation values between the attitude of female Adolescent school students towards online learning and their academic achievement is 0.71 and is found to be significant at 0.01 level of

significance. This indicates that there is a significant, positive relationship between the attitude of female Adolescent school students towards online learning and their academic achievement through online learning.

Table- 4  
*Relationship between Adolescent school students belonging to different levels on the basis of Attitude towards online learning and their Academic achievement through online learning in the total sample*

	Attitude towards online learning			Total
Academic achievement through online learning	(16) 7	(70) 9	(19)	16
	(16) 9	(70) 51	(19) 10	70
	(16)	(70) 5	(19) 9	14
TOTAL	16	65	19	100

Table – 5  
 Value of  $X^2$  showing the Relationship between Adolescent School students belonging to different levels on the basis of Attitude towards online learning and their Academic achievement through online learning in the total sample

Value of $x^2$	Value of $df$
32.04	4

Table -5 shows the  $x^2$  value. The critical value for 4 df as given in the chi square table are 9.488 and 13.277 respectively for 0.5 and 0.1 levels of significance and the obtained value 32.04 of  $x^2$  is higher than these values. These indicate that there is a significant relationship between Adolescent school students' attitude towards online learning and their academic achievement through online learning.

## VI. CONCLUSION

This study reveals that 16%, 65% and 19% of Adolescent school students have above average, average, and below average attitude towards online learning. 16%, 70% and 14% of Adolescent school students are above average, average, and below average in Academic achievement. The results of the study reveal that there is significant relationship between the attitude of Adolescent school students towards online learning and their academic achievement through online learning in the total sample and sub sample based on gender. The study concluded that students having high Attitude towards online learning have high achievement through online learning. This study shows the importance of positive Attitude among Adolescent school students towards online learning for improving their Academic Achievement. Various training programs may be designed to improve the online learning skills and ICT skills of students and training may be given to teachers to improve their ICT skills so that there will be a positive Attitude towards on line learning among Teachers and Students which will definitely increase the Academic Achievement of Adolescent School students through Online learning.

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Dr Usha Parvathy. "Attitude of Adolescent School Students Towards Online Learning And Its Relationship With Their Academic Achievement Through Online Learning." *IOSR Journal of Humanities and Social Science (IOSR-JHSS)*, 27(02), 2022, pp. 21-25.