

SHODH SAMAGAM

ISSN : 2581-6918 (Online), 2582-1792 (PRINT)



A Study on Impact of E-Learning on Academic Achievement of Higher Secondary Students during Pandemic

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ORIGINAL ARTICLE



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Received on : 04/07/2022

Revised on : -----

Accepted on : 11/07/2022

Plagiarism : 00% on 05/07/2022



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A Study on Impact of E-Learning on Academic Achievement of Higher Secondary Students during Pandemic 1. Subhadip Bhurisrestha, M.Ed. Scholar, Pragati College, Choubey Colony, Raipur (C.G.) 2. Gunjan Sharma, Assistant Professor, Pragati College, Choubey Colony, Raipur (C.G.) ABSTRACT The global outbreak of the COVID-19 pandemic has spread worldwide, affecting almost all countries and territories.

The public care strategies have included hand washing, wearing face masks, physical distancing, and avoiding mass gathering and assemblies. Lockdown and social distancing measures due to the COVID-19 pandemic have led to closures of schools,

ABSTRACT

The global outbreak of the COVID-19 pandemic has spread worldwide, affecting almost all countries and territories. The public care strategies have included hand washing, wearing face masks, physical distancing, and avoiding mass gathering and assemblies. Lockdown and social distancing measures due to the COVID-19 pandemic have led to closures of schools, training institutes and higher education facilities in most countries. There is a paradigm shift in the way educators deliver quality education—through various online platforms. The online learning, distance and continuing education have become a panacea for this unprecedented global pandemic, despite the challenges posed to both educators and the learners. Transitioning from traditional face-to-face learning to online learning can be an entirely different experience for the learners and the educators, which they must adapt to with little or no other alternatives available. The education system and the educators have adopted “Education in Emergency” through various online platforms and are compelled to adopt a system that they are not prepared for. The present research study was aimed to see the Impact of E-Learning on Academic Achievement of Higher Secondary Students during Pandemic. For the purpose the study was delimited up to Raipur City of Chhattisgarh State. XI class students were considered as sample of the present study. A number of 100 students of class XI constituted the sample size for the present research study among which 50 students were selected from 05 Government schools and remaining 50 students were selected from 05 private schools. Survey

method was selected for collection of data. a total of 100 students were selected from 05 Government and 05 private higher secondary schools of Raipur district of Chhattisgarh State. Stratified random sampling technique was used to select the samples in this study. Questionnaires were prepared by the researcher to assess the impact of E-Learning on the academic achievement of the higher secondary school students. The findings revealed that there was significant impact of e-learning on academic achievement of male and female students of Government higher secondary schools. Also significant impact of e-learning on academic achievement of male and female students of private higher secondary schools was seen.

KEYWORDS

COVID-19, Academic Achievement, e-learning, Higher Secondary School.

INTRODUCTION

E-Learning is utilizing electronic technologies to get access educational curriculum. It refers to a course, program or degree that is completed through online. Presently, e-learning is inspiring the world societies at large. In this perturbed era, it is hard to get education in formal mode due to social, economic or interconnected problems in the society. But everyone has an urge to continue its education within possible means. E-learning makes education flexible because there is no limitation of time and space. So, e-learning makes learning easier to learn. The evolution of technology is drastically changing the social norms. Educated and uneducated masses use technology frequently for enjoyment and benefits. It is observed that different social media like face book, what's app and twitter plays an important role in education. These applications strongly attracted students and connected them with different parts of the world. These applications introduce them a variety of new terms of education, one of them is e-learning. E-learner want to adopt new technologies to learn and to connect with peoples related to their field of study (Anshari, Alas, & Guan, 2016). Many countries of the world are promoting education through e-learning. But everyone wants to enhance his/her education at any cost and by mean. So, one of this possible mean is e-learning. Which makes education flexible for learners because there are no boundaries of time and building? Now we can have called next era of education, era of e-learning education. In modern world of science and technology, modes of education are molded from non-formal to informal, from informal to formal, from formal to distance and now from distance to e-learning. Many countries of the world are promoting education through e-learning. However, the current research proposal is an attempt to investigate the potentially positive contributions of technology on student's interest in learning at higher secondary school students.

Review of Related Literature

Rohde and Thompson (2005) found that the measures of general cognitive ability continued to add to the prediction of academic achievement. Colom and Mendoza (2006) conducted a study in Brazil and found that intelligence does predict the children differences in scholastic achievement. The results emphasized personal intelligence as a genuine predictor of individual differences in scholastic achievement.

Fraine, Damme and Onghena (2007), Ehrmann and Massey (2008), have maintained that students having higher intelligence are high achievers in academic performance than the students having low intelligence. Habibollah et al (2009) showed that there is no significant relationship between academic achievement and intelligence. Steinmayr et al. (2010) reported that intelligence serves as predictors to academic achievement.

Noesgaard Schack Signe and Rikke orngreen (2015) have conducted a research study on the Effectiveness of E-Learning: An Explorative and Integrative Review of the Definitions, Methodologies

and Factors that Promote E-Learning Effectiveness. This paper discusses whether e-Learning and traditional face-to face learning should be measured according to the same definitions of and approaches to effectiveness, ending with a call for learning designers and researchers to target their measurement efforts to counting what counts for them and their stakeholders.

Lynch, Maggie has conducted a research study on “E-Learning during a Global Pandemic” in 2020. The onset of the COVID-19 virus has tested education, social, and economic structures as the pandemic has spread around the world. UNESCOs monitoring indicates that over 181 countries have implemented nationwide school closures, impacting more than 1.5 billion students.

Statement of Problem

A Study on Impact of E-Learning on Academic Achievement of Higher Secondary Students during Pandemic

Objectives of the Study

1. To study the dimensions of E-Learning.
2. To study the academic achievement of the students.
3. To find out the impact of e-learning on the students of Government higher secondary schools.
4. To find out the impact of e-learning on students of private higher secondary schools.
5. To find out the impact of e-learning on academic achievement of students of Government higher secondary schools.
6. To find out the impact of e-learning on academic achievement of students of private higher secondary schools.

Hypothesis of the Study

1. There will be no significant impact of e-learning on academic achievement of male and female students of Government higher secondary schools.
2. There will be no significant impact of e-learning on academic achievement of male and female students of private higher secondary schools.

Variables

In the present research study the variables are:

Independent Variable: E-Learning

Dependent Variable: Academic Achievement

Area and Limitation of the Study

1. The present study was delimited up to Raipur City only.
2. XI class students were considered as sample of the present study.
3. A number of 100 students of class XI constituted the sample size for the present research study among which 50 students were selected from 05 Government schools and remaining 50 students were selected from 05 private schools.

Research Method

Survey method was selected for collection of data.

Sample

For the present study a total of 100 students were selected from 05 Government and 05 private higher secondary schools of Raipur district of Chhattisgarh State. Stratified random sampling technique was used to select the samples in this study.

Tool

Questionnaires were prepared by the researcher to assess the impact of E-Learning on the academic achievement of the higher secondary school students.

Varification of Hypothesis

Related to the problem of the present research study there are two hypothesis framed. To test the significance of the hypothesis the raw data collected from 5 Government schools and 5 private schools were tabulated and “ANOVA” (Analysis of Variance) were calculated.

Based on the collective data the hypothesis are tested in the following way:-

H₁ There will be no significant impact of e-learning on academic achievement of male and female students of Government higher secondary schools.

Univeritate Analysis of Variance

Table 01: Table showing the distribution of samples between-Subjects Factors

		Value Label	N
Type of Schools	1.00	Government Schools	50
	2.00	Private Schools	50
Gender	1.00	Male Students	50
	2.00	Female Students	50

(Source: Primary Data)

Table 02: Table showing Descriptive Statistics related to E-Learning of Higher Secondary School Students

Type of Schools	Gender	Mean	Std. Deviation	N
Government Schools	Male Students	14.00	1.08	25
	Female Students	9.36	1.11	25
	Total	11.68	2.58	50
Private Schools	Male Students	15.96	1.05	25
	Female Students	12.12	1.26	25
	Total	14.04	2.25	50
Total	Male Students	14.98	1.44	50
	Female Students	10.74	1.82	50
	Total	12.86	2.68	100

(Source: Primary Data)

Graph 01: Graph showing Descriptive Statistics related to E-Learning of Higher Secondary School Students

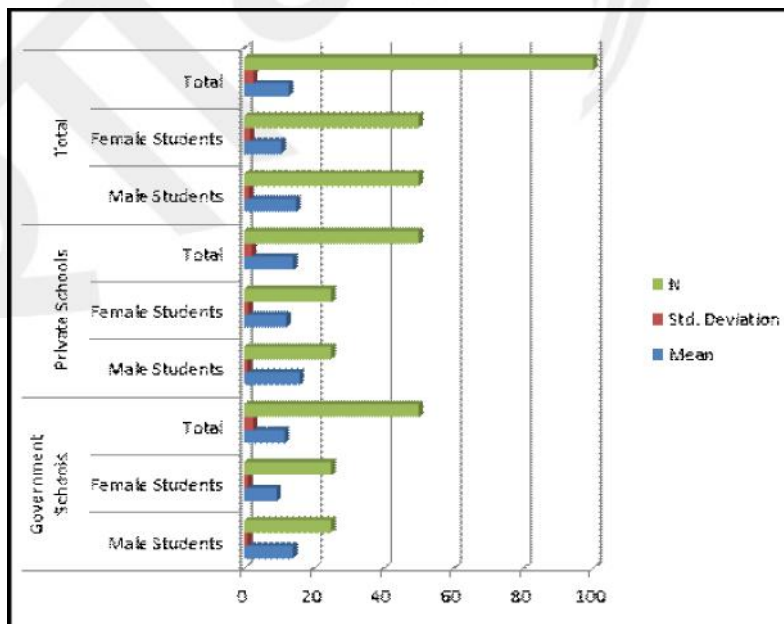


Table 03: Table showing Tests of Between-Subjects Effects

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Type of Schools * Gender	4	1	4	3.11	.081	.03

a. R Squared = .828 (Adjusted R Squared = .822)

(Source: Primary Data)

Table 02 revealed that the mean value and standard deviation is found 14 and 1.08 in relation to the E-Learning for the male students of Government higher secondary schools respectively. The mean value and standard deviation is found 9.36 and 1.11 for the female students of Government higher secondary school respectively. The mean value and standard deviation is found 15.96 and 1.05 for the male students of private higher secondary school respectively. The mean value and standard deviation is found 12.12 and 1.26 for the female students of private higher secondary school respectively. Table 03 revealed that the f-value is found 3.11 respectively for the types of schools * Gender.

H₂ There will be no significant impact of e-learning on academic achievement of male and female students of private higher secondary schools.

Univariate Analysis of Variance

Table 04: Table showing the distribution of samples between-Subjects Factors

		Value Label	N
Type of Schools	1.00	Government Schools	50
	2.00	Private Schools	50
Gender	1.00	Male Students	50
	2.00	Female Students	50

(Source: Primary Data)

Table 05: Descriptive Statistics related to Academic Achievement of Higher Secondary School Students

Type of Schools	Gender	Mean	Std. Deviation	N
Government Schools	Male Students	23.64	1.25	25
	Female Students	19.92	1.57	25
	Total	21.78	2.34	50
Private Schools	Male Students	26.24	3.04	25
	Female Students	18.92	1.46	25
	Total	22.58	4.38	50
Total	Male Students	24.94	2.65	50
	Female Students	19.42	1.59	50
	Total	22.18	3.52	100

(Source: Primary Data)

Graph 02: Graph showing descriptive Statistics related to Academic Achievement of Higher Secondary School Students

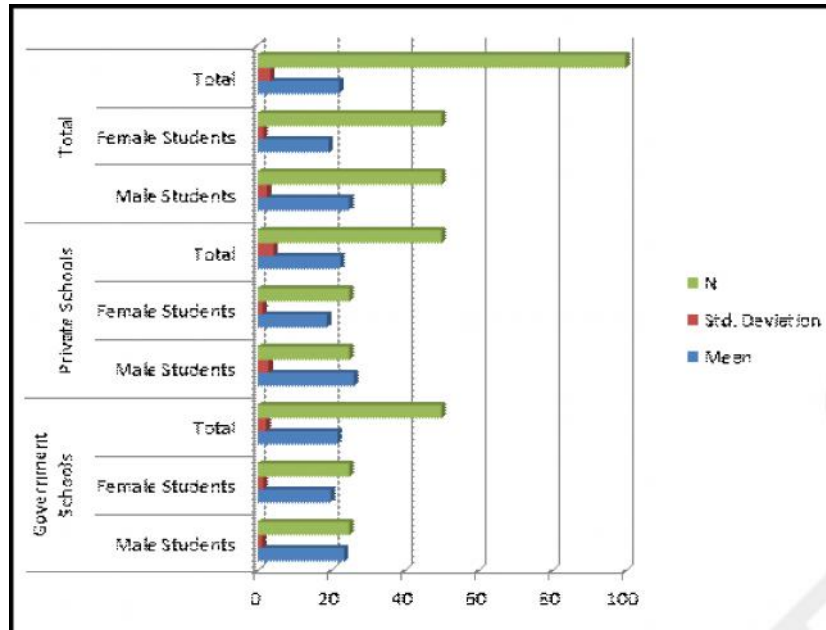


Table 06: Tests of Between-Subjects Effects related to Academic Achievement of Higher Secondary School Students

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Type of Schools* Gender	81	1	81	20.9	.00	.17

(Source: Primary Data)

Table 05 revealed that the mean value and standard deviation is found 23.64 and 1.25 for the male students of Government higher secondary schools respectively. The mean value and standard deviation is found 19.92 and 1.57 for the female students of Government higher secondary school respectively. The mean value and standard deviation is found 26.24 and 3.04 for the male students of private higher secondary school respectively. The mean value and standard deviation is found 18.92 and 1.46 for the female students of private higher secondary school respectively. Table 06 revealed that the f-value is found 20.9 respectively for the types of schools * Gender.

Findings

- The findings revealed that the mean value and standard deviation is found 14 and 1.08 in relation to the E-Learning for the male students of Government higher secondary schools respectively. The mean value and standard deviation is found 9.36 and 1.11 for the female students of Government higher secondary school respectively. The mean value and standard deviation is found 15.96 and 1.05 for the male students of private higher secondary school respectively. The mean value and standard deviation is found 12.12 and 1.26 for the female students of private higher secondary school respectively. It was also revealed that the f-value is found 3.11 respectively for the types of schools * Gender.
- In the verification of the second hypothesis i.e. “There will be no significant impact of e-learning on academic achievement of male and female students of private higher secondary schools” it was revealed that the mean value and standard deviation is found 23.64 and 1.25 for the male students of Government higher secondary schools respectively. The mean value and standard deviation is found 19.92 and 1.57 for the female students of Government higher secondary

school respectively. The mean value and standard deviation is found 26.24 and 3.04 for the male students of private higher secondary school respectively. The mean value and standard deviation is found 18.92 and 1.46 for the female students of private higher secondary school respectively. The results further revealed that the f-value is found 20.9 respectively for the types of schools * Gender.

Suggestions

1. When possible, record the lessons.
2. Prioritize personal connections.
3. Shorten the presentations.
4. Provide information in multiple ways.
5. Make sure the assignments can be done virtually.
6. Look for free resources.
7. Collect student and parent feedback.

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