



## A STUDY ON E-LEARNING STRESS AMONG THE UNDER GRADUATE STUDENTS & STRESS MANAGEMENT TECHNIQUES ADOPTED BY THEM IN NASHIK CITY

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### Abstract:

Stress is an inevitable for people of all walks of life. Right from the birth, an individual is consistently exposed to various stressful situations. It is not restricted to adults only but is affecting the students of all age groups. And because of the Covid -19 pandemic all the educational institutions are compelled to adopt E-education system. Adaption of this E-learning platform has led to increase the stress & pressure among the students. This paper is prepared to put focus on sources of stress found among the undergraduate students due to online education as well as the symptoms observed among them because of increasing stress. The study also aims to highlight the consequences both positive and negative of stress among the students and coping strategies revealed by them to overcome stress.

**Keywords:** *Stress, E-Learning, Students, Consequences.*

**Introduction:** COVID-19 pandemic forced every sector to adopt E-Platform for their operations. The education sector has not escaped from this. In response to this situation to avoid the academic loss of the students the educational institutions have started using E learning platform. Adoption of E learning platform compelled the students to use digital devices like Android phones, tablets or Laptops along with good quality internet connectivity and internet data. This might be expensive for low and middle-class family. It made difficult for the students to adjust the requirements of E learning platform & creates the extra economic burden on these families and students. Due to lack of digital devices & strong connectivity the students are unable to attend their lectures and complete the assignments or any class work, as a result students get pressurised. Also, the sudden transformation from traditional offline classes to Smart Online classes could make the student confused & fatigued. The classroom activities, group projects, team activities, physical activities etc has been missed by the students & it has led to adversely affect the academic performance of the students & increase their stress. E learning has also restricted the interactions & face to face communication between teacher & students and peer learning. It has disturbed the social life of students & isolated learning has given rise to deep anxiety and frustration among the students. Another reason to increase the stress among the students is lack of understanding the concepts taught by the teachers in online classes.

Students are always compared with their friends, relatives & peers. So, they are constantly under the pressure to give their best in all aspects of academics & extracurricular activities. Students experience a high level of stress because of

unrealistic demands of parents & teachers from them. E learning has restricted the face-to-face interaction between teachers & friends and as a result they feel low and not able to concentrate on their academics. Online education may increase the knowledge gap as they face difficulty in accessing the educational resources like reference books, study materials etc.

Similarly for the completion of assignments & homework students are required to refer the PDF or PPT's or notes available on Google classroom as well they required to watch videos posted in Google classroom. The people are very sensitive towards the brightness of screen and if they are exposed to on continuously for longer duration they may have eye irritation, water moisture from eyes or headache. The distractions & surrounding noise unable the students to concentrate on the lecture and it makes them irritate. To avoid these distractions during online lectures if they use ear phones it could give them headache. The increasing stress due to online learning negatively affects the mental, physical and behavioural well-being of the students.

#### **Objectives:**

1. To know the E Learning stress experienced by the students.
2. To identify the sources of stress among the students.
3. To study the effects of stress on the health & behaviour of the students.
4. To know various strategies adopted by students to overcome the stress.

#### **Hypothesis:**

H<sub>1</sub>: E-learning significantly develop psychological stress amongst the students

H<sub>2</sub>: E-learning significantly develop physical Stress amongst the students

H<sub>3</sub>: Remedies significantly help to reduce the E-learning Stress

#### **Research Methodology:**

The research paper is based on E-Learning Stress among Under Graduate Students & Stress Management Techniques adopted by them. Research Universe selected for this paper is Nashik City (Maharashtra)

Sampling Method: Convenience Sampling

Sample Size: 162 respondents

Sample Unit: Undergraduate students of Nashik City

Data Collection Method: Survey Method

#### **Sources of Data:**

Primary data is collected through Structured Questionnaire

Secondary data is collected through books, research articles & magazines.

**Statistical Tools applied:** Simple Average & Percentage, ANOVA, and Cronbach's Alpha for reliability statistic of the instrument

#### **Literature Review:**

Dr. Deepti Deshpande; Chandrakala Kaluram Mhatre (2021): The authors focused on the impact of online education on the academic performance & mental health among the undergraduate students. They put light on the difficulties encountered by the students during online lecture.

Xu and Jaggars (2013, pp 46-57): The authors have focused to find out of the impact of Online & Offline education on the performance of students. He stated that travelling distance between college campus & home of the student serve as an important factor for the preference to online education.

Wieling & Hofman (2010): The authors in their research had shown that there is a positive impact of online lectures on the students. For their research they had considered various factors like Student's grade point average, discipline, and difficulty level of course, grade goal for the course etc. It was found that watching online recorded lectures had improved the grades of the students.

R. Hemamalini, V. Ashok, V. Sasikala (2018): People facing stress at educational levels can leads to psychological problems which can be in the form of decreased attendance for class & examination, decreased motivation, incompleteness of given tasks etc. He stated that academic stress is one of the important stressors among the students. To overcome this stress management should be introduced in the curriculum so that the students themselves will able to manage stress at their individual level. He also stated that students irrespective of their age, gender, income level should be treated equally without any discrimination

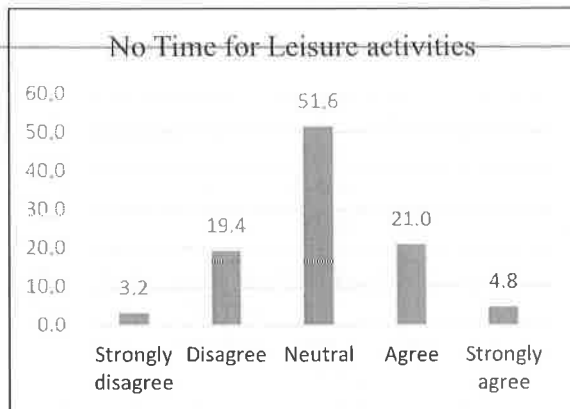
Parameters for the study of stress	Parameters for the study of Remedies
Sadness	Yoga and Meditation
Anxiety	Physical Activities
Depression	Regular communication with friends, relatives and parents
Feeling lonely	Use Social media
Fear	Proper Sleep
Restlessness	Proper Diet
Eye irritation	Listen to music
Headache	Watch movie /TV
Reduced sleeping time	Read inspirational book

### Data Analysis & Interpretation:

Table 1.1 Profiles of Respondents

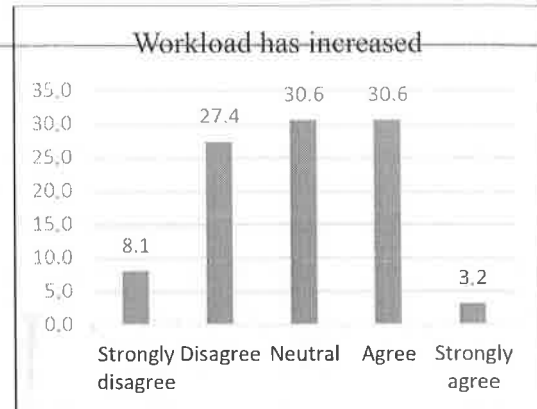
Gender	Frequency	Percentage
Female	83	51.23
Male	79	48.76

**Table 1.2:** Respondents who do not get time for leisure activities



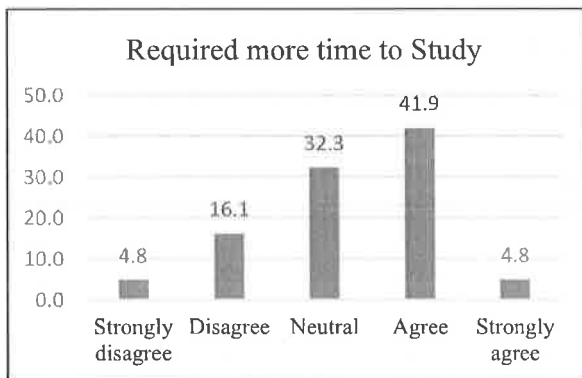
**1.2** Above table indicates that, 19.4% of respondents are disagreed, 51.6% are neutral & 21.0% of respondents are agreed that they had no time for Leisure Activities.

**Table 1.3:** Workload has been increased.



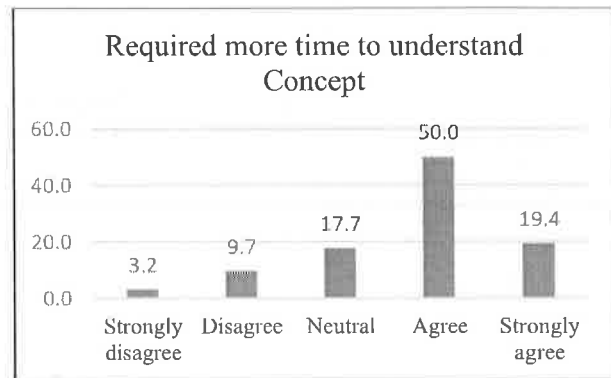
**1.3** According to above table 30.6% of respondents agreed that their workload has been increased due to online education, while 27.4% of respondents are disagreed & 30.6% had given neutral reaction.

**Table 1.4:** More time required to study



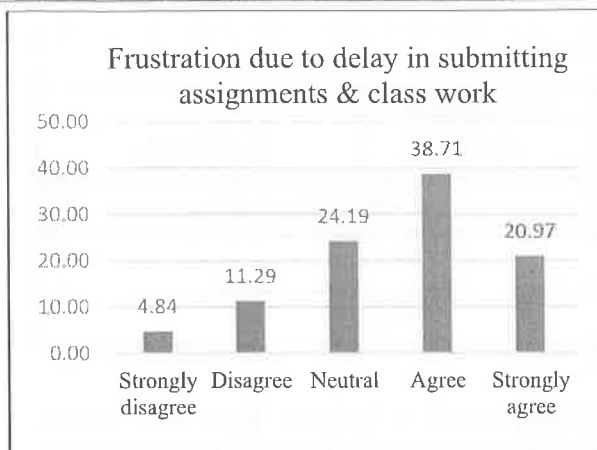
**1.4** According to above table 16.1% respondents disagreed, 41.9% agreed that they required more time to study, while 32.3% of respondents' had given neutral reaction about the time required for study.

**Table 1.5:** Require more time to understand the concept.

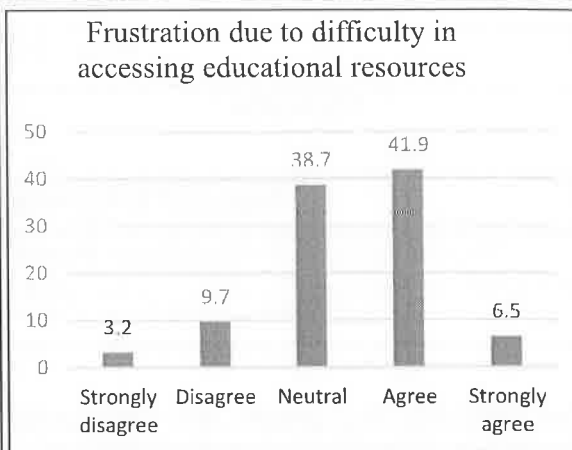


**1.5** The table indicates that 50.0% of respondents are agreed, 19.4% of respondents strongly agreed that they require more time to understand the concept, while 17.7% of respondents has given neutral reaction about this.

**Table 1.6:** Feel frustrated due to delay in submitting assignments & Class work.



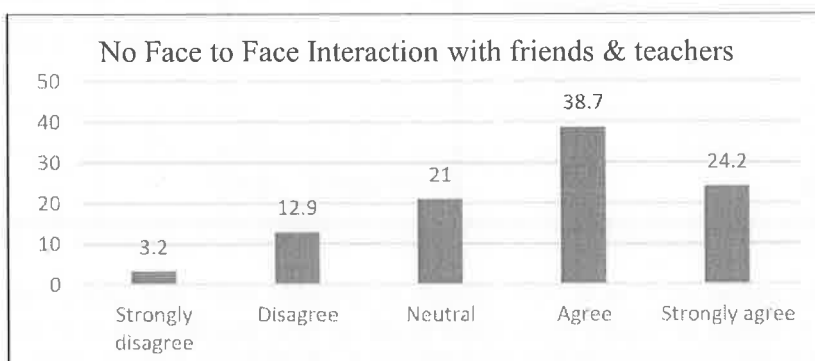
**Table 1.7:** Difficulty in accessing educational resources



**1.6** The above table indicates that the students are frustrated due to delay in submitting assignments & Class work. The table indicates that 38.7% of respondents agreed, 21.0% of respondents are strongly agreed while 24.2% has given Neutral reaction that the students feel frustrated due to delay in submitting assignments & class work assigned to them.

**1.7** The table indicates that the students get frustrated as they get difficulty in accessing education resources like reference books, study materials, lack of library resources etc. 41.9% of respondents are agreed that they are frustrated because they face difficulty in accessing resources like reference books, study materials, lack of library resources etc. while 38.7% of respondents have given neutral reaction about it.

**1.8:** Low confidence as there is no face-to-face interaction with friends & teachers.



The table indicates that due to lack of face-to-face interaction with friends & teachers the confidence of the students is lowered. 38.7% of respondents agreed, 24.2% of respondents are strongly agreed that due to online education there is no face-to-face interaction & communication between friends & teachers which lowered the confidence of the students, while 21.0% of respondents has given neutral reaction

**Hypothesis Testing:**

This survey was conducted by taking the response of 62 respondents from Nashik city. The measurement of reliability was done for examining the stability and consistency of the collected data. The consistency of the instrument's questions was

determined with the help of measuring a construct. Cronbach's alpha was used to measure the internal consistency. 0.791 is the overall average value of Cronbach's alpha, which indicates good stability and consistency in the data.

Test of Reliability		
Particular	Cronbach's Alpha	N of Items
Impact of E-learning	.729	11
Psychological& Physiological Stress	.841	9
Techniques to reduce stress	.803	11

The reliability test results are Cronbach's alpha score is greater than 0.7, which shows a high level of internal consistency. Thus it is concluded that this instrument is accepted for further statistical analysis with a satisfactory level of reliability

#### Hypothesis Testing:

**H<sub>1</sub>: E-learning significantly develop psychological stress amongst the students**

**ANOVA Table**

	Sum of Squares	df	Mean Square	F	Sig.
Trans_Im Between (Combined)	7.310	16	.457	5.108	.002
p * Groups					
Trans_Ps Linearity	2.832	1	2.832	13.063	.001
ycho Deviation from Linearity	4.479	15	.299	1.377	.041
Within Groups	9.755	45	.217		
Total	17.065	61			

As the computed value of F is 5.108, which is greater than the table value that is 4.494, and the p-value is 0.001 less than 0.05 at 5% significant and 95 per cent confidence level hence we accept H<sub>1</sub> and conclude that there is a significant relation between the E-learning and development of Psychological stress amongst the students. To establish the association between the variables researcher further conducted an ANOVA test to measure the association and relation.

Measures of Association				
	R	R Squared	Eta	Eta Squared
Trans_Imp * Trans_Psycho	.407	.166	.655	.428

R square values of the above table stipulate how much extent each factor causes variations in E-learning and development of psychological stress. The R square value for Stress development is 0.116, which shows that psychological stress explains 16.6% of the variation in the E-learning. Eta Squared value is 0.428, which indicates a very high association between the E-learning and Development of Psychological Stress

**H2: E-learning significantly develop physical Stress amongst the students**

**ANOVA Table**

			Sum of Squares	df	Mean Square	F	Sig.
Trans_I mp * Trans_ Physi	Between	(Combined)	5.158	13	.397	5.599	.004
	Groups	Linearity	2.453	1	2.453	9.890	.003
		Deviation from Linearity	2.704	12	.225	.908	.546
Within Groups			11.907	48	.248		
Total			17.065	61			

As the computed value of F is 5.599, which is greater than the table value that is 4.667, and the p-value is 0.003 less than 0.05 at 5% significant and 95 per cent confidence level hence we accept H1 and conclude that there is a significant relation between the E-learning and development of Physical stress amongst the students. To establish the association between the variables researcher further conducted an ANOVA test to measure the association and relation.

**Measures of Association**

	R	R Squared	Eta	Eta Squared
Trans_Imp * Trans_Physi	.379	.144	.550	.302

R square values of the above table stipulate how much extent each factor causes variations in E-learning and development of physical stress. The R square value for Stress development is 0.144, which shows that Physical stress explains 14.4% of the variation in the E-learning. Eta Squared value is 0.302, which indicates a very high association between the E-learning and Development of Physical Stress.

**H<sub>3</sub>: Remedies significantly help to reduce the E-learning Stress**

**ANOVA Table**

			Sum of Squares	df	Mean Square	F	Sig.
Trans_Rem * Reduce_Stress	Between Groups	(Combined)	2.417	3	.806	12.550	.004
		Linearity	.942	1	.942	2.981	.001
		Deviation from Linearity	1.475	2	.738	2.335	.106
	Within Groups		18.323	58	.316		
	Total		20.740	61			

As the computed value of F is 12.550, which is greater than the table value that is 10.128, and the p-value is 0.001 less than 0.05 at 5% significant and 95 per cent confidence level hence we accept H<sub>3</sub> and conclude that there is a significant relation between the Remedies to reduce the stress of E-learning and Reduction in Stress of E-learning amongst the students. To establish the association between the variables researcher further conducted an ANOVA test to measure the association and relation.

**Measures of Association**

	R	R Squared	Eta	Eta Squared
Trans_Rem * Reduce_Stress	.213	.450	.341	.317

R square values of the above table stipulate how much extent each factor causes variations in Remedies to reduce the stress of E-learning and Reduction in Stress of E-learning amongst the students. The R square value for Stress development is 0.450, which shows that stress reduces 45% of the variation in the Remedies. Eta Squared value is 0.317, which indicates a very high association between the Remedies to reduce the stress of E-learning and Reduction in Stress of E-learning amongst the students.

Table No. 1.13 Summary of Hypothesis Testing

Hypothesis	R Square	Eta Square	Sig.	Result
<b>H<sub>1</sub>: E-learning significantly develop psychological stress amongst the students</b>	0.166	0.428	0.001	<b>Accepted</b>
<b>H<sub>2</sub>: E-learning significantly develop physical Stress amongst the students</b>	0.114	0.302	0.003	<b>Accepted</b>



<b>H<sub>3</sub>: Remedies significantly help to reduce the E-learning Stress</b>	0.450	0.317	0.001	<b>Accepted</b>
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## Findings

Majority of the respondents are stressed as their workload has been increased due to Online Education. Students are agreed that online learning is time consuming as they required more time to study & understand the concepts. Most of the respondents are agree that they get frustrated when they get delayed to submit the assignment, project work & other class activities. Maximum number of students is of the opinion that they get frustrated because they found it difficult to access the educational resources like reference books, journal, and study material from the library. Even respondents are agreed that as there is no face-to-face interaction & communication between the teachers & friends, they get depressed.

## Conclusion

The present study put light that E learning stress has proved to be a devastating problem, affecting the mental & physical health & well-being of the students. The students get emotionally disturbed and feel isolated as there is no face-to-face interaction between students and teachers. And as a result, they get de-motivated. Similarly increasing academic expectations of parents, relatives, teachers & comparison between students leads to increase the stress. The ability of the students to deal with stress may be impaired due to cutting edge challenges. Sometimes the situation becomes such that we do not understand how to deal with it. overcome this stressful situation & to manage the stress the students adopt the numerous coping strategies like yoga, meditation which helps to become stable. Reading of inspirational books motivates them & increases their morale. In the same way communicating and spending more time with parents, friends & relatives helps to overcome depression.

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