Compression in the Level of Stress and Adjustment: A Study of Elementary School Students During Online Classes

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Abstract

Aim: The present study aimed to investigate the level of stress and adjustment of elementary school students during online classes.

Methodology: A sample of 40 elementary school students was taken from 2 private schools in Noida, UP, India. The sample was collected with a random sampling technique. The tool used for this study was (i) Student Stress Inventory (SSI) by Mohammad Aziz Shah Mohamed Arip was used to measure the level of stress among elementary school students. (ii) Adjustment Inventory of School Students (AISS) by Prof. A.K.P. Sinha & Prof. R.P. Singh was used to measure the adjustment level among elementary school students. The data was analyzed by using mean, standard deviation, and t-test.

Findings: However, no significant difference was established in the stress level of the studied sample, and all 11 null hypotheses were accepted, but the results indicate that (i) Boys are more likely to experience stress than girls of elementary school students. (ii) Lower ages of elementary school students experience more stress than higher of elementary school students. (iii) Boys are more likely to experience stress in the physical component of the stress scale than girls of elementary school students. (iv) Boys are more likely to experience stress in interpersonal relationships component of stress scale than girls of elementary school students.

Keywords: Adjustment, Elementary School Students, Online Classes, Stress.

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Introduction

In the present day context, education is perhaps the most important means for individuals to improve personal growth and build capability levels to realize good in the future. Education is the acquisition, assimilation, and communication of information and knowledge of all areas. We generally focus on two types of teaching-learning processes: traditional and online.

Traditional teaching (face-to-face) mainly focuses on various elements such as lectures, team projects, field trips, workshops, labs, studios, etc. In this, the teaching is conducted in the physical environment where the students are present at the same place simultaneously. Traditional classrooms have various advantages, like face-to-face interaction between them. Students have found that the face-to-face classroom can be an active learning environment where the learning space is physical for both student and instructor can see, hear, and pick up on physical cues and body language.

On the other side, online classes are conducted over the internet on virtual platforms. They are generally conducted through a learning management system, in which students can view their course syllabus and academic progress and interact with their classmates and the teacher. In online classes, the students attend online lectures, workshops, projects, assignments etc. The online teaching-learning process is more different from the traditional teaching-learning process in practical work.

The psychologist defined the term, stress as "a reaction of a particular individual to a stimulus event." *(Skinner 1985)* "Stress can be defined as an under load or overload of matter, energy or information input to, or output from a living system." *(Steinberg and Ritzmann, 1990).* James Drever (19944) defines an adjustment as the modification to compensate for or meat special condition. According to Shaffer, L.S.(2013), "Adjustment is the process where

human being maintains a balance between his needs and therefore the circumstances influencing the satisfaction of those needs".

Nowadays, learners are affected physically, academically and psychologically through online teaching-learning. Learning online or attending school in an online platform is a new experience for us in this pandemic situation. In online learning, learners attend virtual classes the same as they did in their schools. The learners are under stress as they are not much aware of these new learning platforms. They are adjusting themselves to online learning, but they face lots of problems. Stress issues are the leading impediment to academic success Allam & Tyagi 2010). Stress illness can affect a learner's motivation, concentration, and social interactions. (Malik & Tyagi 2020)

Need and Significance of the Study

It has been observed that there are so many studies related to stress and adjustment ability, but there is no study of the level of stress and adjustment ability among elementary school students during online classes. This study has analyzed the stress and adjustment level among elementary school students. The study's findings have been helpful to the principals, teachers, and administration by suggesting a plan of action for them to manage the stress and adjustment level among students.

OBJECTIVES OF THE STUDY

The present study has been achieved the following objectives-

- To compare the stress level as per the gender of elementary school students.
- To compare the stress level as per their age of elementary school students.
- To compare the stress level in the boys and girls on the component physical of stress scale.
- To compare the stress level in the boys and girls on the component interpersonal relationships of stress scale.
- To compare the stress level in the boys and girls on the component academic of stress scale.
- To compare the stress level in the boys and girls on the component environmental of stress scale.
- To compare the adjustment level as per the gender of elementary school students.
- To compare the adjustment level as per their age of elementary school students.
- To compare the adjustment level in the boys and girls on the component emotional of adjustment scale.
- To compare the adjustment level in the boys and girls on the component social of adjustment scale.
- To compare the adjustment level in the boys and girls on the component educational of adjustment scale.

METHODOLOGY

A sample of 40 elementary school students was taken from 2 private schools of Noida. The sample was collected with a random sampling technique. The tool used for this study was (i) Student Stress Inventory (SSI) by Mohammad Aziz Shah Mohamed Arip was used to measure the level of stress among elementary school students. (ii) Adjustment Inventory of School Students (AISS) by Prof. A.K.P. Sinha & Prof. R.P. Singh was used to measure the adjustment level among elementary school students. The data was analyzed by using mean, standard deviation, and t-test.

ANALYSIS OF THE RESULTS

Table 1 indicates the mean score of boys on stress is 76.62, and mean score of girls on stress is 69.16. Higher the mean value, is higher the stress. The statistically calculated 't' value is 1.56, lower than the 't' table value, indicating no significant difference in the comparison group. Hence, the null hypothesis that there is no significant difference in stress level as per their gender is accepted.

Table 2 indicates the mean score of the higher age of students is 65.22 and the mean score of lower age of students is 77.81. The higher the mean score is higher the stress. Statistically calculated 't' value is 0.006 which is lower than the 't' table value, indicating no significant difference in the compare group. Hence, the null hypothesis there is no significant difference in the level of stress as per their ages of students is accepted.

Table 3 indicates the mean score of boys in the physical component of stress is 17.75, and the mean score of girls in the physical component of stress is 15.70. Higher the mean score, is higher the stress. The statistically calculated 't' value is 0.23, lower than the 't' table value, indicating no significant difference in the comparison group. Hence, the null hypothesis that there is no significant difference in the level of stress in physical components is accepted.

Table 4 indicates the mean score of boys in interpersonal relationships component of stress is 20.5 and the mean score of girls in interpersonal relationships component of stress is 18.45. Higher

Table 1: Representing the Mean and SD of the stress level as per the gender of elementary school students.

Variables	Compared groups	N	Mean	SD	df	t value	Significant level
Stress	Boys	16	76.62	17.85	38	1.56	NS
	Girls	24	69.16	12.38			

Note: * Significant at 0.01 level
** Significant at 0.05 level

Table 2: Representing the Mean and SD of the stress level as per the age of elementary school students.

Variables	Compared groups	N	Mean	SD	df	t value	Significant level
Stress	Higher Age	18	65.22	12.23	38	0.006	NS
	Lower Age	22	77.81	15.009			

Note: * Significant at 0.01 level
   ** Significant at 0.05 level

Table 3: Representing the Mean and SD of the stress level in boys and girls on the component physical of stress scale.

Variables	Compared groups	N	Mean	SD	df	t value	Significant level
Physical component of stress	Boys	14	17.75	5.99	38	0.23	NS
	Girls	26	15.70	4.69			

Note: * Significant at 0.01 level
   ** Significant at 0.05 level

Table 4: Representing the Mean and SD of the stress level in boys and girls on the component interpersonal relationships of stress scale.

Variables	Compared groups	N	Mean	SD	df	t value	Significant level
Interpersonal relationships component of stress	Boys	16	20.5	5.11	38	0.17	NS
	Girls	24	18.45	4.17			

Note: * Significant at 0.01 level
   ** Significant at 0.05 level

the mean score, is higher the stress. The statistically calculated 't' value is 0.17, lower than the 't' table value, indicating no significant difference in the comparison group. Hence, the null hypothesis there is no significant difference in the level of stress in interpersonal relationships component is accepted.

Table 5 indicates that the mean score of boys in the academic component of stress is 19.18, and the mean score of girls is 16.75. Higher the mean score, is higher the stress. The statistically calculated 't' value is 0.19, lower than the 't' table value, indicating no significant difference in the comparison group. Hence, the null hypothesis that there is no significant difference in the level of stress in the academic component is accepted.

Table 6 indicates the mean score of boys in the environmental component of stress is 19.18 and that mean score of girls is 18.25. Higher the mean score is higher the stress. The statistically calculated 't' value is 0.62, lower than the 't' table value, indicating no significant difference in the comparison group. Hence, the null hypothesis that there is no significant difference in stress level in the environmental component is accepted.

Table 7 indicates the mean score of boys on adjustment is 24.81, and mean score of girls on adjustment is 25.83. Higher the mean value is higher the adjustment. The statistically calculated 't' value is 0.67, lower than the 't' table value, indicating no significant

difference in the comparison group. Hence, the null hypothesis says that no significant difference in level of adjustment as per their gender is accepted.

Table 8 indicates the mean score of higher age of students is 17.11 and the mean score of lower age of students is 18.77. Higher the mean score is higher the adjustment. The statistically calculated 't' value is 0.37, which is lower than the 't' table value, indicating no significant difference in the compare group. Hence, the null hypothesis that no significant difference in adjustment level as per their ages of students is accepted.

Table 9 indicates the mean score of boys in the emotional component of adjustment is 3.5, and the mean score of girls in the emotional component of adjustment is 4.66. Higher the mean score is higher the adjustment. The statistically calculated 't' value is 0.16, lower than the 't' table value, indicating no significant difference in the comparison group. Hence, the null hypothesis says that no significant difference in the level of adjustment in emotional component is accepted.

Table 10 indicates the mean score of boys in the social component of adjustment is 6.18, and the mean score of girls in social component of adjustment is 6.66. Higher the mean score is higher the adjustment. The statistically calculated 't' value is 0.51, lower than the 't' table value, indicating no significant difference in the comparison group.

Table 5: Representing the Mean and SD of the stress level in boys and girls on the component academic of stress scale.

Variables	Compared groups	N	Mean	SD	df	t value	Significant level
Academic component of stress	Boys	16	19.18	6.75	38	0.19	NS
	Girls	24	16.75	5.02			

Note: * Significant at 0.01 level
    ** Significant at 0.05 level

Table 6: Representing the Mean and SD of the stress level in boys and girls on the component environmental of stress scale.

Variables	Compared groups	N	Mean	SD	df	t value	Significant level
Environmental component of stress	Boys	16	19.18	6.23	38	0.62	NS
	Girls	24	18.25	5.68			

Note: * Significant at 0.01 level
    ** Significant at 0.05 level

Table 7: Representing the Mean and SD of the adjustment level as per their gender of elementary school students.

Variables	Compared groups	N	Mean	SD	df	t value	Significant level
Adjustment	Boys	16	24.81	7.58	38	0.67	NS
	Girls	24	25.83	7.24			

Note: * Significant at 0.01 level
    ** Significant at 0.05 level

Table 8: Representing the Mean and SD of the adjustment level as per the age of elementary school students.

Variables	Compared groups	N	Mean	SD	df	t value	Significant level
Adjustment	Higher Age	18	17.11	6.56	38	0.37	NS
	Lower Age	22	18.77	5.13			

Note: * Significant at 0.01 level
    ** Significant at 0.05 level

Table 9: Representing the Mean and SD of the adjustment level in boys and girls on the component emotional of adjustment scale.

Variables	Compared groups	N	Mean	SD	df	t value	Significant level
Emotional component of adjustment	Boys	14	3.5	2.09	38	0.16	NS
	Girls	26	4.66	2.83			

Note: * Significant at 0.01 level
    ** Significant at 0.05 level

Table 10: Representing the Mean and SD of the adjustment level in boys and girls on the component social of adjustment scale.

Variables	Compared groups	N	Mean	SD	df	t value	Significant level
Social component of adjustment	Boys	14	6.18	1.86	38	0.51	NS
	Girls	26	6.66	2.46			

Note: * Significant at 0.01 level
   ** Significant at 0.05 level

Table 11: Representing the Mean and SD of the adjustment level in boys and girls on the component educational of adjustment scale.

Variables	Compared groups	N	Mean	SD	df	t value	Significant level
Educational component of adjustment	Boys	14	7.5	2.50		0.70	NS
	Girls	26	7.25	1.59	38		

Note: * Significant at 0.01 level
   ** Significant at 0.05 level

Hence, the null hypothesis that no significant difference in the level of adjustment in the social component is accepted.

Table 11 indicates the mean score of boys in the educational component of adjustment is 7.5, and the mean score of girls in the educational component of adjustment is 7.25. Higher the mean score is higher the adjustment. Statistically calculated 't' value is 0.70, lower than the 't' table value, indicating no significant difference in the comparison group. Hence, the null hypothesis says that no significant difference in the level of adjustment in the educational component is accepted.

DISCUSSIONS

Level of Stress among Elementary School Students

As per gender, the present study indicates, there is no significant difference in the level of stress between boys and girls

As per age, the current study indicates there is no significant difference in the higher age and lower age of elementary school students.

As per the components of physical, interpersonal relationships, academic and environmental, the present study indicates no significant difference in the level of stress between boys and girls.

The present study's findings of the academic stress scale are consistent with the previous research findings such as Prabu (2015) found that the boy students experienced a slightly higher level of academic stress compared to their counterparts.

Level of Adjustment among Elementary School Students

As per gender, the present study indicates no significant difference in the level of adjustment between boys and girls. That, girls, are more tending to experience need of adjustment than boys. The present study's academic stress scale findings follow the previous research findings such as Jain, Tyagi, and Kumar (2015) found that the girl students experienced the need of adjustment compared to their counterparts.

As per age, the current study indicates there is no significant difference in the higher age and lower age of elementary school students.

As per the emotional, social, and educational components, the present study indicates that there is no significant difference in the level of adjustment between boys and girls. The study indicates that girls are more prone to need adjustment ability in all components than boys. But in the educational components, the study indicates that boys are more prone to need adjustment than their counterparts.

CONCLUSION

The present study is expected to contribute to the better understanding of variables that lead to elementary school students' stress and adjustment ability. This can help principals/administration to deal with it effectively and successfully. Further, findings can help implement effective prevention programs against elementary school students.

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