

## Relationship between English Language Related Academic Stress and English Language Anxiety of Secondary School Students

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### ABSTRACT

The present study aim to explore the relationship between English language related academic stress and English language anxiety of secondary school students. Data were collected from a stratified random sample of 312 secondary school students by administering the English Language Related Academic Stress Scale, and English Language Anxiety Scale. Statistical techniques such as t-test, product moment correlation, and two tailed test of significance for the differences between two independent coefficients of correlation were used for data analyses. Gender, medium of instruction, and levels of achievement in English were found to have significant effect on the English language related academic stress of secondary school students. English language related academic stress and English language anxiety of secondary school students were found to be correlated significantly and positively. While there was significant difference between boys and girls in the degree of relationship between the variables, neither the medium of instruction nor the levels of achievement in English was found to be decisive in discriminating the groups based on the degree of relationship between the variables.

**Keywords:** *English language anxiety, Academic stress, secondary school students.*

English has grown into the principal language for international communication for the past several decades due to historic as well as cultural reasons. In recent years this mission has been taken up by the economic and technological forces, particularly the economic liberalization and the internet, and the English language has become a '*lingua franca*,' for trade and technology throughout the world (Crystal, 2003). Teaching and learning of English language in schools, therefore, is of utmost importance for countries like India to become a part of global community (NCERT, 2012). The teaching and learning of English have received great attention in Indian schools and its major goal is to make the student independent (Sindkhedkar, 2012).

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With the spread and development of English around the world, English is used as a second language in a country like India and for some people the first language. It enjoys a high prestige in the country. At present the role and status of English in India is higher than ever as evidenced by its position as a key subject of medium of instruction, and part of curriculum. In spite of the ever increasing importance of English as a world language, English remains as one of the difficult school subjects in most part of India, and Kerala is not an exception (Heera, 2015). Teaching of English is more than a century old in our schools. Still it is often considered as the most stressful subject at school level where failure is highest.

The factors contributing to classroom stress among students have long been researched on, and investigators have identified stressors as too many home works, over emphasis on grades, classroom competition, poor teacher-pupil relationship, and threat of failures are just few to mention (Fairbrother & Warn, 2003). The adverse effects of academic stress on the physical and mental health of the learners are well documented in literature (Fields & Prinz, 1997; Lee & Larson, 2000; Leung *et al.*, 2010; Huh & Shin, 2015). Unlike other school subjects, learning of English is likely to be more stressful to the learners primarily due to the anxiety factors associated with second language acquisition. Systematic research evidence, however, is lacking in literature to verify this presumption, and this research investigation partially addresses this issue.

### ***Objectives***

*The study has the following objectives in view:*

1. To compare the English language related academic stress of secondary school students with regard to gender, medium of instruction, and level of achievement in English.
2. To find out the relationship between English language related academic stress and English language anxiety of secondary school students.
3. To compare different groups of secondary school students with regard to the degree of relationship between English language related academic stress and English language anxiety.

### ***Hypotheses***

*The following null hypotheses were tested in the study:*

1. There is no significant difference in the English language related academic stress of secondary school students with respect to: (a) gender, (b) medium of instruction, and (c) level of achievement in English.
2. There is no significant relationship between English language related academic stress and English language anxiety of secondary school students (*for total sample and samples based on gender, medium of instruction, and levels of English achievement*).
3. There is no significant difference between boys and girls in the secondary schools with regard to the degree of relationship between their English language related academic stress and English language anxiety.

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4. There is no significant difference between English medium and Malayalam medium students in the secondary schools with regard to the degree of relationship between their English language related academic stress and English language anxiety.
5. There exist no significant differences among secondary school students in different levels of English achievement with regard to the degree of relationship between English language related academic stress and English language anxiety.

### METHODOLOGY

Normative survey method was adopted for the present study. The sample of the study consisted of a stratified random sample of 312 secondary school students (mean age = 14.37;  $\sigma = 0.58$ ) selected from different schools of Kerala. The data for the study were collected by using the English Language Related Academic Stress Scale (ELRAS) developed by Jeeva and Beena (2015) and English Language Anxiety Scale (ELAS) developed by Arjunan & Archana (2014). The ELRAS is a 50 item, five-point, Likert-type Scale which generate a quantitative measure of the stress experienced by students from diverse learning activities of English language. The scale includes items pertained to cognitive, affective, behavioural and physical manifestations of stress associated with learning of school subjects. The scale was estimated to have a concurrent validity of 0.76 and test-retest validity of 0.84. The ELAS is a Likert-type 5-point scale consisting of 30 items covering three dimensions of English language anxiety, viz., communication apprehension, fear of negative evaluation, and performance anxiety. The ELAS has been shown to have a concurrent validity of 0.72, and a test-retest reliability of 0.81. The tool was administered on the sample under standardized conditions and the data thus collected were analyzed using appropriate descriptive and inferential statistical techniques with the help of SPSS.

#### *Analysis and Interpretation*

The data were analyzed by keeping the important objectives of the study in mind. The major analyses carried out are given under appropriate titles:

#### *Comparison of English Language Related Academic Stress of Boys and Girls*

The mean scores of the ELRAS obtained for the boys and girls were compared to find out whether the groups differ significantly with respect to the academic stress they experience in English class. The data and result of the analysis is given in Table 1.

**Table 1: Comparison of the English Language Related Academic Stress of Boys and Girls**

Groups	Group Statistics				t-value
	N	M	SD	SE <sub>M</sub>	
Boys	160	158.64	23.86	1.886	5.77*
Girls	152	172.85	19.28	1.564	

$df = 310$

\* Significant at 0.01 level

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The t-value obtained on comparing the mean ELRAS scores of boys and girls, given in Table 1, is significant at 0.01 level ( $t = 5.77$ ;  $p < 0.01$ ). It reveals that there is a significant difference between the gender groups with regard to the stress they experience in learning English. A closer observation of the data present in Table 1 indicates that the secondary school girls experience more stress than boys in learning English.

### *Comparison of English Language Related Academic Stress of Malayalam Medium and English Medium Students*

The mean ELRAS scores Malayalam medium and English medium students are compared by applying the two-tailed test of significance for the differences between two independent means, and the data and result of the analysis is given in Table 2.

**Table 2: Comparison of the English Language Related Academic Stress of Malayalam Medium and English Medium Students**

Groups	Group Statistics				t-value
	N	M	SD	SE <sub>M</sub>	
Malayalam Medium	230	170.48	17.880	1.179	6.81*
English	82	151.78	28.975	3.200	

$df = 310$  \* Significant at 0.01 level

The t-value obtained on comparing the English language related academic stress of Malayalam medium and English medium students are significant ( $t = 6.81$ ;  $p < 0.01$ ) revealing that the groups differ significantly with regard to their academic stress. Scrutiny of the data presented in Table 2 reveals that Malayalam medium students experience higher academic stress in English learning compared to their counterparts in English medium schools.

### *Comparison of English Language Related Academic Stress of High-, Average-, and Low Achievers in English*

It was one of the aims of the present study to find out whether level of achievement in English is a significant factor deciding the English language related academic stress of secondary school students. Accordingly, one way ANOVA was carried out to find out significant differences, if any, among students in High-, Average-, and Low levels of English achievement, with regard to their academic stress in English class. The data and result of the ANOVA are given in Table 3.

**Table 3: Summary of one way ANOVA (ELRAS X 3 Levels of English Achievement)**

ELRAS	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	110804.559	2	55402.280	332.142	.000
Within Groups	51542.159	309	166.803		
Total	162346.718	311			

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The F-value obtained (vide Table 3) is significant at .001 level, revealing that there exists a significant difference among the High-, Average-, and Low achievers in English with regard to the English language related academic stress they experience. To put it differently, the academic stress the secondary school students experience in English learning varies according to their level of achievement in English. This makes further analysis indispensable to find out the groups which differ significantly. The Scheffe's post hoc test of multiple comparisons was further carried out to find out the group-pairs which differ significantly. The data and result of the analysis is given in Table 4.

**Table 4: Post Hoc Tests for Comparisons of the Internet Addiction in Locale Groups**

ELRAS Scheffe		Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
(I) Eng Ach	(J) Eng Ach				Lower Bound	Upper Bound
Low	Average	12.114*	1.938	.000	7.35	16.88
	High	63.725*	2.655	.000	57.20	70.25
Average	Low	-12.114*	1.938	.000	-16.88	-7.35
	High	51.611*	2.201	.000	46.20	57.02
High	Low	-63.725*	2.655	.000	-70.25	-57.20
	Average	-51.611*	2.201	.000	-57.02	-46.20

\*. The mean difference is significant at the 0.05 level.

The result of the Scheffe's post hoc test revealed that the mean difference of ELRAS scores obtained for all the group pairs compared for the high-, average-, and low achievers in English are significant at 0.001 level. Scrutiny of the results presented in Table 4 indicate that the English language related academic stress of secondary school students are in the order of low achievers > average achievers > high achievers. The hypothesis formulated in this context (*there is no significant difference in the English language related academic stress of secondary school students with respect to: (a) gender, (b) medium of instruction, and (c) level of achievement in English*) is hence rejected.

### ***Relationship between English Language Related Academic Stress and English Language Anxiety***

The relationship between English language related academic stress and English language anxiety for the total group of secondary school students and the sub-samples based on gender, medium of instruction, and levels of achievement in English was estimated by calculating Pearson's Product Moment Coefficient of Correlation (**r**-value). The details of the analysis are presented in Table 5.

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**Table 5: Relationship between English Language Related Academic Stress and English Language Anxiety**

Group	Sample	N	r	SE <sub>r</sub>	r <sub>POP</sub>	
					.05 level	.01 level
Whole	Total Sample	312	0.419 <sup>*</sup>	0.047	0.33 – 0.51	0.30 – 0.54
Gender	Boys	160	0.486 <sup>*</sup>	0.060	0.37 – 0.60	0.33 – 0.64
	Girls	152	0.289 <sup>*</sup>	0.074	0.17 – 0.41	0.13 – 0.45
Medium of Instruction	Malayalam	230	0.331 <sup>*</sup>	0.059	0.22 – 0.45	0.18 – 0.48
	English	82	0.427 <sup>*</sup>	0.090	0.31 – 0.54	0.27 – 0.58
Achievement in English	High	41	0.253 <sup>#</sup>	0.146	-0.03 – 0.54	-0.12 – 0.63
	Average	215	0.352 <sup>*</sup>	0.060	0.23 – 0.47	0.20 – 0.51
	Low	56	0.185 <sup>#</sup>	0.129	-0.07 – 0.44	-0.15 – 0.52

<sup>\*</sup>Significant at 0.01 level <sup>#</sup> Not Significant

The value of coefficient of correlation (*r*) between English language related academic stress and English language anxiety for the total group of secondary school students was estimated to be 0.419 with its population values positioned between 0.33 and 0.51 at 0.95 confidence interval and between 0.30 – 0.54 at 0.99 confidence interval. The standard error (SE<sub>r</sub>) of the correlation for the total group was estimated to be 0.047. The obtained *r*-value is positive and significant at 0.01 level, exposing that there is a reciprocal relationship between the English language related academic stress and English language anxiety of secondary school students. The coefficients of correlation between the variables estimated for the sub-samples based on gender, medium of instruction, and levels of achievement in English were also found to be positive and significant, except for high achievers and low achievers in English, the estimated correlation are not large enough to be significant at least at 0.05 level. The hypothesis formulated in this context, viz., Hypothesis-2, is hence accepted in the case of total sample and sub-samples based on gender and medium of instruction, but rejected partly in the case of high-and low achievers inn English.

**Comparison of Boys and Girls with regard to the Relationship between English Language Related Academic Stress and English Language Anxiety**

The coefficients of correlation (*r*-values) between the English language related academic stress and English language anxiety, obtained for the boys and girls were compared to see whether there is a significant difference between the groups with regard to the association between the variables. The obtained correlations were first corrected into nearest two decimal figures (*r. correct*) and the corresponding Fisher’s *z* functions were found out followed by the estimation of critical ratios. The result obtained on comparing the coefficients of correlation (*r*) between English language related academic stress and English language anxiety of the gender based sub-samples is presented in Table 6.

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**Table 6: Comparison of Boys and Girls with regard to the Coefficients of Correlation between their English Language Related Academic Stress and English Language Anxiety**

Sub-samples	Statistical indices				Critical Ratio
	N	r	r. correct	z	
Boys	160	0.486	0.49	0.536	2.07*
Girls	152	0.289	0.29	0.299	

\* Significant at 0.05 level

The critical ratio (CR-value) obtained on comparing the boys and the girls regarding their coefficients of correlations English language related academic stress and English language anxiety is significant (CR = 2.07;  $p < 0.05$ ). It reveals that the relationship between English language related academic stress and English language anxiety is not alike in boys and girls. A closer observation of the estimated r-values (vide Table 5) shows that the relationship between the variables is stronger in boys than in girls. It shows the English language anxiety of boys is more strongly influenced by their English language related academic stress than that is influenced in the case of girls.

**Comparison of the r-values of Malayalam medium and English Medium Students**

The product moment coefficient of correlation between English language related academic stress and English language anxiety, obtained for the Malayalam medium and English medium students were compared to find out the significant difference, if any, between the groups. The details of the comparison made are given in Table 7.

**Table 7: Comparison of the r-values for Malayalam medium and English medium Students**

Sub-samples	Statistical Indices				Critical Ratio
	N	r	r. correct	z	
Malayalam Medium	230	0.331	0.33	0.343	0.766*
English Medium	82	0.427	0.43	0.460	

\* Not significant

As evident from Table 7, the CR-value obtained on comparing the coefficients of correlation between English language related academic stress and English language anxiety for the Malayalam medium and English medium students is not significant (CR = 0.766;  $p > 0.05$ ). It indicates that medium of instruction is not a significant factor in discriminating secondary school students on the basis of the coefficient of correlation between their stress and anxiety related to learning of English.

**Comparison of the r-values of High-, Average-, and Low Achievers in English**

The coefficients of correlation between English language related academic stress and English language anxiety, obtained for the students in different levels of achievement in English, viz., high-, average-, and low achievers, were subjected to paired comparison of the r-values to find

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out whether there is any significant difference between the groups with regard to the degree of relationship between the variables. The data and result of the analysis carried out in this context is given in Table 8.

**Table 8: Comparison of the r-values for High-, Average-, and Low Achievers in English**

Achievement Levels	Statistical Indices				Critical Ratio
	N	r-value	r. correct	z	
High	41	0.253	0.25	0.255	0.624
Average	215	0.352	0.35	0.365	
High	41	0.253	0.25	0.255	0.296
Low	56	0.185	0.19	0.192	
Average	215	0.352	0.35	0.365	1.126
Low	56	0.185	0.19	0.192	

As evident from Table 8, none of the critical ratios obtained on comparing the r-values of the sub-samples is significant. It shows that the sub-samples are almost identical with regard to the relationship between the variables. To put differently, the high-, average-, and low achievers in English do not differ significantly with respect to the degree of relationship between English language related academic stress and English language anxiety. The degree of relationship between the variables does not play any significant role in differentiating the sub-samples based on their achievement in English.

## CONCLUSIONS

The following are the major conclusions drawn from the analyses:

1. There exists a significant difference between boys and girls in the secondary schools of Kerala with regard to their English language related academic stress ( $t = 5.77$ ;  $p < 0.01$ ). The secondary schools girls are exposed to more stress in English class than their counterparts.
2. Significant difference was found to exist between Malayalam medium and English medium students of secondary schools with regard to the stress they experience in English class ( $t = 6.81$ ;  $p < 0.01$ ). The Malayalam medium students experience more stress in English classrooms compared to English medium students.
3. Secondary school students from high-, average-, and low levels of achievement in English differ significantly with regard to their English language related academic stress ( $F = 332.142$ ;  $p < .001$ ). The Scheffe's post hoc test revealed that significant difference exists between all the paired groups of High-, Average-, and Low achievers in English. The English language related academic stress of secondary school students are in the order of low achievers > average achievers > high achievers.
4. There exists a significant positive relationship between English language related academic stress and English language anxiety of secondary school students of Kerala ( $r = 0.419$ ;  $p < 0.01$ ). The different sub-samples based on gender and medium of instruction

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were also found to follow the same trend with regard to the correlation between the variables. The variables, however, were not found correlated significantly in High ( $r = 0.253$ ;  $p > 0.05$ ), and Low ( $r = 0.185$ ;  $p > 0.05$ ) achievers in English.

5. negative but significant correlation between internet addiction and social intelligence of university entrants of Kerala. The observed significant correlation exists in the case of total sample ( $r = -0.379$ ;  $p < 0.01$ ) as well as in the case of internet independent ( $r = -0.551$ ;  $p < 0.01$ ) and internet dependent ( $r = -0.229$ ;  $p < 0.01$ ) sub-samples. The  $H_0$  3 (*there will be no significant relationship between social intelligence and internet addiction of university entrants*), is therefore rejected.
6. There is significant difference between boys and girls in the correlation between English language related academic stress and English language anxiety ( $CR = 2.07$ ;  $p < 0.05$ ). The relationship between the variables is stronger in boys than in girls.
7. The Malayalam medium students and English medium students are alike with regard to the degree of relationship between their English language related academic stress and English language anxiety ( $CR = 0.766$ ;  $p > 0.05$ ).
8. There is no significant differences among students in different levels of English achievement with regard to the correlation between their English language related academic stress and English language anxiety.

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