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## Academic stress among students of Van Lang University, Vietnam

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### Abstract

This study aims to evaluate the level of academic stress of students at Van Lang University, exploring differences in stress levels through variables such as gender, field of study, year of study and academic results, as well as evaluate the correlation and influence of these factors on students' academic stress. The study was designed and conducted as a quantitative, cross-sectional, descriptive study. Data were collected through questionnaire and convenient random sampling technique with 439 students participating. SPSS 26.0 statistical software was used to analyze survey data; Descriptive statistics and inferential statistics were calculated to prove the research hypotheses. Research results show that 70.5% of students have academic stress at Moderate level, 13.9% of students at the Mild level and 15.3% at the severe level. Factors such as gender, field of study, year of study, and academic results are correlated with students' academic stress at a low level ( $r = -0.146$  to  $0.196$ , with  $p = 0.00 < 0.05$ ). Field of study and academic results are recognized as having an impact on students' academic stress at different levels: field of study ( $\beta = 0.126$ ,  $p = 0.35 < 0.05$ ), academic results ( $\beta = 0.167$ ,  $p = 0.00 < 0.05$ ). Gender ( $\beta = -0.088$ ,  $p = 0.65 > 0.05$ ) and year of study ( $\beta = 0.085$ ,  $p = 0.162 > 0.05$ ) do not impact on students' academic stress. The findings of this study contribute to confirming academic stress is a common problem among students. Lecturers, staff, and school administrators need to pay attention and take support measures to help students cope effectively with study stress.

**Keywords:** Academic stress, mental health, university students, Van Lang university

### Introduction

Mental health problems in general, and academic stress in particular, are quite common among university students (Fawzy *et al.*, 2017; Ronny *et al.*, 2018; Pascoe *et al.*, 2020, Yang *et al.*, 2021) <sup>[10, 31, 28, 43]</sup>. Research by Wörfel *et al.* (2016) <sup>[41]</sup> showed that 14.2% of students showed signs of depression, 16.3% showed signs of anxiety and 8.4% had symptoms of both disorders. Research on a sample of 4,184 students by Tran *et al.* (2017) <sup>[35]</sup> found that 12.6% showed signs of depression and 7.6% showed signs of anxiety. Another study by Kamarunzaman and colleagues in 2020 found that 48.4% of students had mental health problems. In the context of the Covid-19 pandemic, research by Batra *et al.* in 2021 showed an increase in the proportion of students with mental health problems, with up to 31.2% having depression and 39.4% having mental health problems. % anxiety during the pandemic. In 2023, the American Student Health Association surveyed 55,000 students and found that 79% of students had experienced moderate or high stress, 53% met the criteria for experiencing loneliness, 31% met criteria for suicidal ideation, while 3% reported attempting suicide in the past year and 13% had intentionally injured themselves. Some recent studies on Vietnamese students also found that a large proportion of students have mental health problems in general and stress in particular. Research by Thong and colleagues in 2022 showed that the proportion of students with signs of stress, anxiety and depression was 51.84%, respectively; 81.55% and 57.09%. Among them, the rate of students showing signs of severe to very severe stress disorder is 7.96%; anxiety disorder is 35.92% and depression is 8.55%. Rate of 28.4% of students suffering from depression; Moderate, severe, and very severe depression at 18.2%, 7.6%, and 2.6%, respectively, were also confirmed in a recent study by Anh and Hien (2023) <sup>[3]</sup>.

Academic stress is understood as a psychological state caused by academic and social pressures (Misra *et al.*, 2000; Neseliler *et al.*, 2017) <sup>[23, 25]</sup>, it is a complex concept that includes many factors emotional, social, and academic stressors (Misra & McKean, 2000) <sup>[23]</sup>.

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Researchers have measured academic stress in many aspects such as academic pressure, workload, worry about grades, self-expectation, and boredom (Sun *et al.*, 2011) [32]. Many factors have been identified as having an impact, related to students' academic stress: academic workload, financial difficulties, fear of failure (Aihie & Ohanaka, 2019) [1]; teachers' teaching behaviors and styles (Trigueros *et al.*, 2020) [37]; difficulties in class, high expectations, test anxiety, bullying, social comparison, poor relationships with friends, domestic violence (Aiman *et al.*, 2020) [2]. Academic stress has a huge impact on students' academic performance, mental health, psychological well-being, quality of life, and even absenteeism. Research by Tus (2020) [39] and Rehman *et al.* (2023) [30] confirm that academic stress has a negative impact on students' academic performance, students with high levels of stress often have poorer academic results than other students. Stress and other mental health issues can negatively impact the health of college students (Tammy *et al.*, 2013) [33], being significantly correlated with psychological well-being (Barbayannis *et al.*, 2022) [6] and has a negative association with quality of life (Ícaro *et al.*, 2018). Research by authors Marôco *et al.* (2020) [21], Noman *et al.* (2021) [26] confirms that academic stress is one of the causes leading to students missing school. Effectively coping with stress is important in improving students' mental health, quality of life, and academic achievement (Alborzkouh *et al.*, 2015; Zarei *et al.*, 2016; Freire *et al.*, 2020; Gong *et al.*, 2023) [5, 44, 11, 15]. Therefore, paying attention to and supporting students to effectively cope with academic stress is very necessary (Tuan, 2023; Ma, 2023) [38, 22].

Van Lang University is a large, multidisciplinary university. There are currently more than 40,000 students studying in more than 60 different majors in 07 majors. The school pursues the educational philosophy "Van Lang helps learners discover their full potential. Each individual at Van Lang is fully equipped for a bright career, thereby building a meaningful, effective, satisfying and impactful life for themselves, while also setting strategic goals. Strategy to 2030 "Becoming one of the most admired young universities in Asia, a place to train people for comprehensive development, lifelong learning, ethics, bringing positive and inspiring influences for the society". To achieve this goal, in addition to improving training programs, improving the quality of lecturers, enhancing scientific research achievements, promoting international cooperation, improving the learning environment and conditions, schools need to pay attention to improving the learning quality of learners and taking care of students' mental health. Research on student stress in learning will help lecturers and school administrators understand one of the psychological difficulties and mental health problems of students so that they can take appropriate support measures to help students cope effectively with stress, study effectively, contribute to improving the quality of training and affirming the position of the school. However, there is currently no specific research on the academic stress of Van Lang University students as well as the relationship and influence of gender, field of study, year of study and academic results on academic stress of students.

## Materials and Methods

### Purpose of the study

The purpose of this study is to evaluate students' academic stress levels, explore differences in students' stress levels through variables such as gender, field of study, year of

study and academic results. At the same time, evaluate the influence of gender, field of study, year of study and academic results on academic stress of students at Van Lang University.

### Research hypothesis

#### This study focuses on proving the following hypotheses

**H<sub>1</sub>:** Most students have academic stress at the "Moderate" level, and not a small percentage of students have academic stress at the "Severe" level.

**H<sub>2</sub>:** There is a statistically significant difference in students' academic stress levels according to gender, field of study, year of study, and academic performance.

**H<sub>3</sub>:** Gender, field of study, year of study, and academic performance impact on student's academic stress.

### Research design

This study is a quantitative, cross-sectional research approach. Research objectives and hypotheses are determined based on the research overview and practical context. Research data was collected through a questionnaire including scales on academic stress, gender, field of study, year of study, and academic results. Participants/research subjects were randomly selected and agreed to participate in the study. Data is collected online via Google form and processed with statistical software, scientifically analyzed, from which conclusions are drawn and research hypotheses are proven.

### Research sample

The total number of students of all courses and majors currently studying at Van Lang University is about 40,000 students. We proceed to determine the research sample size according to Yamane's (1967) [42] viewpoint in the case where the population is known, according to the formula:

$$n = \frac{N}{1 + N \times e^2}$$

In which,  $n$  is the sample size to be determined,  $N$  is the population,  $e$  is the allowable error. Choosing the allowable error  $e = 5\%$  (0.05), applying the above formula, the sample size of this study is determined to be at least 396 participants.

We use random sampling and quota sampling to ensure there are enough students representing 7 fields of study, 4 years of study, and gender to serve the purpose of comparing differences in the level of academic stress of students by major, year and gender.

### Measurement tools

This study includes 5 variables: academic stress, gender, field of study, year of study and academic results. To measure these variables, we use the following scales:

### Academic Stress

We use the Educational Stress Scale developed by Sun and colleagues (2011). This scale includes 16 items coded from ASS1 to ASS16, measuring 5 aspects: academic pressure (including 4 statements): ASS4, ASS5, ASS6 and ASS11), workload (including 03 topics: ASS2, ASS3, ASS7), worrying about scores (including 03 topics: ASS8, ASS9, ASS10), expectations for yourself body (including 03

clauses: ASS14, ASS15, ASS16) and depression (including 03 clauses: ASS1, ASS12, ASS13). Each statement is measured on a 5-level Likert scale: from 1 - Completely disagree to 5 - Completely agree. Participants were asked to self-assess their experiences of stress while studying. The higher the self-assessment score, the greater the stress level. The scale was translated from English to Vietnamese and re-translated from Vietnamese to English with the support of language experts to ensure the accuracy of the scale's content before sending it to participants. In this study, Cronbach's Alpha of the total scale = 0.918 and no statement has Cronbach's  $< 0.30$ . This result shows that the scale ensures reliability.

### Gender

We use a hypothetical scale designed by ourselves, the scale is designed as a nominal scale with 03 answer options: 1 - Male, 2 - Female, 3 - Other. Participants were asked to choose one of three answer options that was appropriate for them.

### Field of study

We designed a nominal scale with 07 answer options suitable for 07 majors being trained at Van Lang University, including: 1. Health Sciences, 2. Society and Humanities, 3. Design - Art, 4. Technology - Engineering, 5. Business - Management, 6. Architecture, 7. Tourism. Study participants were asked to choose one of three response options that were appropriate for them.

### Year of study

We designed a nominal scale with 04 answer options suitable to the reality of training organization at Van Lang University (As of the 2023-2024 school year), including: 1. First year, 2. Second year, 3. 3rd year and 4. 4th year. With the Health Sciences major, there is a major that trains up to 6th year students, but because this is a newly opened major of the University, there are currently no 5th and 6th year students. Research participants were asked to choose one of four answer options appropriate to their year of study.

### Academic results

We designed a scale with 06 answer options consistent with the method of assessing learning outcomes being applied at Van Lang University, including: 1. Outstanding (From 3.6 to 4.0), 2. Excellent (From 3.2 to nearly 3.6), 3. Good (From 2.5 to nearly 3.2), 4. Average (From 2.0 to nearly 2.5), 5. Marginal (from 1.0 to near 2.0), 6. Fail (Below 1.0). Study participants were asked to choose one of six response options that matched their learning outcomes.

### Data analysis

SPSS 26.0 statistical software was used to analyze survey data. Cronbach's Alpha analysis was conducted to check reliability. Descriptive statistics (Frequency, percentage, average score, standard deviation) to determine the characteristics of the research sample and the level of academic stress of students. T Test and One-Way ANOVA were conducted to test the difference in students' academic stress level by gender, field of study, year of study and academic results. Pearson correlation analysis and univariate regression were used to analyze the correlation and influence of factors such as field of study, year of study and academic results on students' academic stress.

## Results and Discussion

### Descriptive statistics of the research sample and the reliability of the scale

**Table 1:** Characteristics of the study sample

		N	%
Gender	Male	133	30.3
	Female	295	67.2
	Other	11	2.5
	Total:	439	100.0
Field of study	Health science	62	14.1
	Social and Humanities	74	16.9
	Design - Art	83	18.9
	Technology	53	12.1
	Business -Management	53	12.1
	Architecture	56	12.8
	Tourism	58	13.2
Total:	439	100.0	
Year of study	First year	95	21.6
	Second year	110	25.1
	The third year	134	30.5
	Fourth year	100	22.8
	Total:	439	100.0
Academic performance (GPA)	Outstanding	05	1.1
	Excellent/Very Good	108	24.6
	Good	255	58.1
	Average	66	15.0
	Marginal	05	1.1
	Fail	0	0
	Total:	439	100.0

\* **Source:** Survey results from February-April 2024

According to the statistical results in Table 1, the total number of participants in this study was 439 and distributed according to 4 characteristics: gender, field of study, year of study and academic results. Regarding gender, 133 (30.3%) subjects were male, 295 (67.2%) were female and 11 (2.5%) were other genders. The subjects in the majors were relatively evenly distributed: 62 (14.1%) of the participants were students in the Health Sciences major, 74 (16.9%) were in the Social Sciences and Humanities major, 83 (16.9%) were in the Social Sciences and Humanities major. 83 (18.9%) are in the Design - Art major, 53 (12.1%) students are in the Technology - Engineering major, 53 (12.1%) are in the Business - Management major, 56 (13.2%) are in the Architecture major and 58 (13.2%) of the Tourism sector. Regarding year of study, 95 (21.6%) participants were first year students, 110 (25.1%) were second year students, 134 (30.5%) were third year students and 100 (22.8%) were fourth year students. Thus, the number of participants in different school years is also relatively evenly distributed. Regarding academic performance, the majority of participants have academic results ranked Good - 255 (58.1%), 108 (24.6%) ranked Excellent, 66 (15.0%) ranked Average, the percentage ranked Outstanding - 05(1.1%) and Marginal - 05 (1.1%) are quite low and no participants had academic results classified as Fail. With the distribution characteristics of research participants as described, it allows us to test the difference in academic stress of students by gender (excluding other genders in small numbers), according to by field of study, by year of study and by academic results (Outstanding, Marginal, Fail ratings are excluded due to small numbers).

**Table 2:** Results of Cronbach's Alpha analysis of the learning stress scale

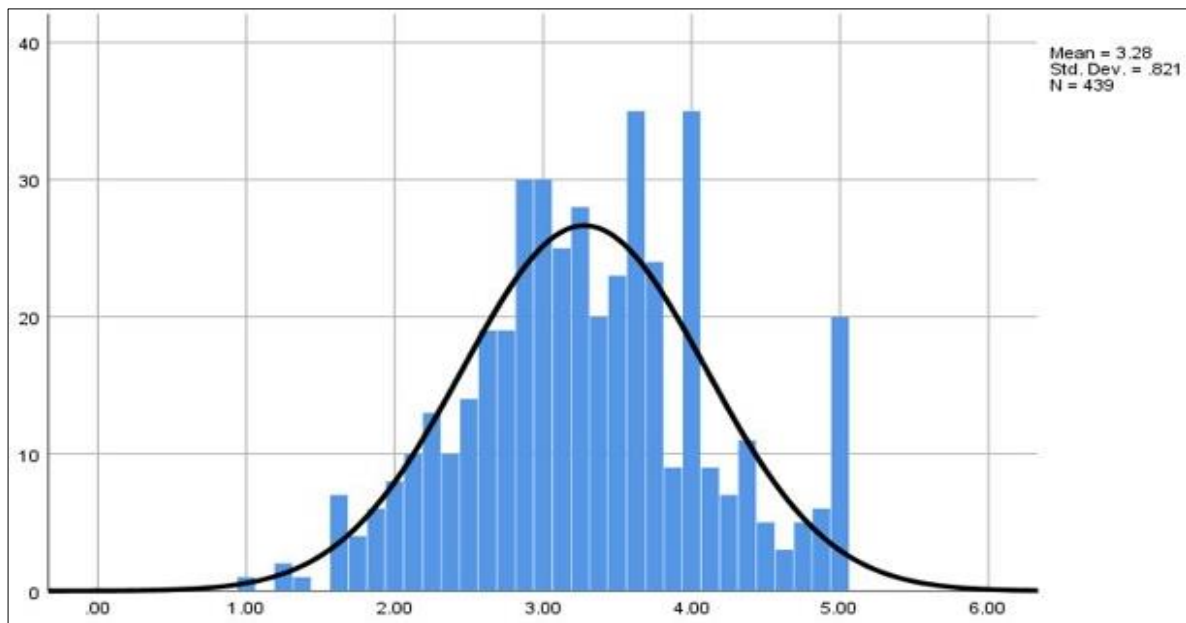
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
ASS1	49.0888	158.611	.448	.918
ASS2	49.1708	155.402	.561	.915
ASS3	49.0638	155.978	.545	.915
ASS4	48.9431	152.296	.626	.913
ASS5	49.8383	151.209	.610	.913
ASS6	49.3531	149.672	.718	.910
ASS7	49.3690	151.297	.670	.911
ASS8	48.6538	157.674	.480	.917
ASS9	49.3075	149.227	.653	.912
ASS10	49.3895	150.932	.642	.912
ASS11	49.1412	151.017	.671	.911
ASS12	49.1344	150.537	.666	.911
ASS13	49.3964	152.970	.608	.913
ASS14	49.1868	149.540	.697	.911
ASS15	48.5923	155.073	.583	.914
ASS16	49.0000	150.027	.623	.913
Total variable	Cronbach's Alpha	Observed variables		
	.918	16		

\* **Source:** Survey results from February-April 2024

The analysis results in Table 2 show that the Cronbach's Alpha coefficient of the total variable including 16 observed variables is 0.918, all observed variables have a total variable correlation > 0.30. According to Nunnally (1978) [27], a good scale should have Cronbach's Alpha reliability of 0.7 or higher. Hair *et al.* (2009) [15] also believe that a scale that ensures unidimensionality and reliability should reach a Cronbach's Alpha threshold of 0.7 or higher. Cristobal *et al.*

(2007) [8] said that a good scale is when the observed variables have a Corrected Item - Total Correlation value of 0.3 or higher. Thus, the study stress scale of this study has good reliability, the observed variables have good meaning in explaining the study stress variable.

**Analyze students' academic stress level**



**Fig 1:** Distribution of students' academic stress scores

The data in Figure 1 show that the mean and median values are nearly equal (Mean = 3.28, Median = 3.25); the skewness ranges from -1 to +1 (Skewness = 0.71) and the data is distributed quite evenly on both sides so it is considered to be normally distributed. Based on the average score (Mean = 3.28) and standard deviation (SD = 0.82) of the data, we analyzed the proportion of students with academic stress at 3 different levels ( $M < \text{Mean} - \text{SD}$ : Mild Level;  $\text{Mean} - \text{SD} \leq M \leq \text{Mean} + \text{SD}$ : Moderate Level;  $M > \text{Mean} + \text{SD}$ : Severe Level), specifically as follows:

**Table 3:** Statistical results of students' academic stress levels

	Levels	Mean ±SD	N	%
Academic stress	Severe	$M > 4.10$	67	15.3
	Moderate	$4.10 \leq M \leq 2.46$	311	70.8
	Mild	$M < 2.46$	61	13.9
Total:			439	100

\* **Source:** Survey results from February-April 2024

From the data presented in Table 3, it can be seen that the majority of students at Van Lang University currently have

academic stress at the Moderate level (70.5%), 13.9% of students have academic stress at the Mild level and 15.3% have Severe level. This is a ratio worth paying attention to. This finding is quite similar to research results in recent years by a number of authors in Vietnam and around the world on different groups of students. Research by Hiếu and Quý (2014) [16] on pedagogical students showed that up to two-thirds of students had high levels of stress in learning activities (very stressed - 13.5%, stressed - 56.5%). Research on students majoring in Medicine and Pharmacy, Ly *et al.* (2021) [20] found that the stress rate in final year students was 38.5%, research by Trần *et al.* (2023) [36]

showed that the stress rate in students was 78.2%, of which, the severity level is 10.5%. On a general student sample, research by Thông *et al.* (2022) [34] confirmed that 51.84% of students had signs of stress, of which the rate of signs from severe to very severe was 7.96%. The American Student Health Association survey (2023) shows that 79% of students have experienced moderate or high stress. These results confirm that academic stress is one of the common problems among students in general, with a significant proportion of students having severe and very severe stress.

**Analyze differences in student academic stress**

**Table 4:** Results of testing differences in academic stress

		N	Mean	SD	Test	P value
Gender	Male	133	3.45	.94	T-Test	0.007
	Female	295	3.20	.74		
Field of study	Health science	62	3.19	.54	One-Way ANOVA/ Welch	0.000
	Social and Humanities	74	3.04	.70		
	Design - Art	83	3.03	.69		
	Technology	53	3.84	.92		
	Business-Management	53	3.03	.75		
	Architecture	56	3.21	.80		
	Tourism	58	3.76	.91		
Year of study	First year	95	3.01	.71	One-Way ANOVA/ Welch	0.001
	Second year	110	3.25	.69		
	The third year	134	3.31	.86		
	Fourth year	100	3.49	.91		
Academic performance	Excellent/Very Good	108	3.06	.73	One-Way ANOVA/ Welch	0.008
	Good	255	3.26	.82		
	Average	66	3.60	.75		

\* Source: Survey results from February-April 2024

Data in Table 4 show that there is a statistically significant difference in the level of academic stress of students according to gender, the field of study, year of study, and academic performance. Male students have higher stress levels than female students (T-Test,  $p=0.007<0.05$ ). Students in the Technology - Engineering and Tourism majors have higher stress levels than the other majors (Welch,  $p=0.000<0.05$ ). The closer to the final years of the course, the higher the level of academic stress of students (Welch,  $p=0.001<0.05$ ). Students with poorer academic

results have higher stress levels and vice versa (Welch,  $p=0.008<0.05$ ). This result is supported by a number of previous studies such as: Vân *et al.* (2009) [40] found that the proportion of men experiencing stress is higher than that of women at the level of "very stressful" and "stressed"; Research by Hạnh (2018) [14], Trần *et al.* (2023) [36] shows that students in their final years of study have higher stress levels than students in their first and second years.

**Correlation and regression analysis**

**Table 5:** Results of correlation and regression analysis between factors and academic stress

	Correlation		Regression		
	r	p	β	t	p
Gender - Academic stress	-.146	.000	-.088	-1.852	.065
The field of study - Academic stress	.190	.000	.126	2.113	.035
Year of study - Academic stress	.192	.000	.085	1.400	.162
Academic performance - Academic stress	.196	.000	.167	3.556	.000

\* Source: Survey results from February-April 2024

The results of correlation and regression analysis between factors and academic stress in Table 5 show that the factors gender, the field of study, year of study, and academic performance are correlated with academic stress at a low level ( $r= -0.146$  to  $0.196$ , with  $p=0.00<0.05$ ). Field of study and learning outcomes are confirmed to have an impact on students' academic stress at different levels: field of study ( $\beta$

$= 0.126$ ,  $p=0.35<0.05$ ), academic performance ( $\beta =0.167$ ,  $p=0.00<0.05$ ). Research results confirm that gender ( $\beta = -0.088$ ,  $p=0.65>0.05$  and year of study ( $\beta = 0.085$ ,  $p=0.162>0.05$ ) do not affect students' academic stress. These findings quite similar to previous research results of Hạnh (2018) [14], Gao *et al.* (2020) [12], Laigong & Shikuku (2020) [19], Ekka (2022) [9].

No	Hypothesis	Conclusion
1	H1. Most students have academic stress at the "Moderate" level and not a small percentage of students have academic stress at the "Severe" level.	Accept
2	H2. There is a statistically significant difference in students' academic stress levels according	Accept

	to gender, field of study, year of study, and academic performance.	
3	H3. Gender, field of study, year of study, and academic performance impact on students' academic stress	Accept factors such as the field of study and academic performance

### Conclusion

The results of quantitative research on academic stress among students at Van Lang University on a sample of 439 participants basically confirm that the research hypotheses we made are correct.

The findings of this study contribute to confirming that academic stress is a common problem among students. We believe that lecturers, staff, and school administrators need to pay attention and take support measures to help students cope effectively with academic stress, especially groups of students with higher levels of stress than other groups. Thereby contributing to improving students' academic results, mental health, quality of life and enhancing the school's training quality.

### Limitations of the study and future research directions

This study only focuses on assessing the level and exploring differences in students' academic stress through variables such as gender, field of study, year of study, and academic performance, as well as assessing the correlation and impact. The effects of gender, major, year of study, and academic performance on students' academic stress in a research sample of 439 participants through a quantitative, cross-sectional research approach. Therefore, the research results only provide a limited perspective on some factors affecting students' academic stress. More research needs to be conducted on a larger sample size, more diverse research approaches, and a more comprehensive look at the factors that affect students' academic stress, thereby confirming the results of this study, as well as providing a more comprehensive view of academic stress and factors affecting students' academic stress.

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strongly agree). The participants' responses to the questions added up to a total score; moreover, 5 different factors resulted from the statistical analysis of their responses to the following: '1- Pressure from study'; '2 - Work-load'; '3 - Worry about grades'; '4 - Self-expectation', and '5 - Dependency'. Higher scores indicate greater stress.

## Appendix

**Educational Stress Scale:** This questionnaire under validation includes 16 items/questions aimed at assessing educational stress. Each question included a 5-point Likert-type scale (ranging from 1 = strongly disagree to 5 =

## English Version

	Items	A 5-point scale				
		1	2	3	4	5
Pressure from study	6. I feel a lot of pressure in my daily studying					
	11. There is too much competition among classmates which brings me a lot of academic pressure					
	4. Future education and employment bring me a lot of academic pressure					
	5. My parents care about my academic grades too much which brings me a lot of pressure					
Work-load	3. I feel there is too much homework					
	2. I feel that there is too much school work					
	7. I feel that there are too many tests/exams in the school					
Worry about grades	10. I feel that I have disappointed my teacher when my test/exam results are not ideal					
	9. I feel that I have disappointed my parents when my test/exam results are poor					
	8. Academic grade is very important to my future and even can determine my whole life					
Self-expectation	14. I feel stressed when I do not live up to my own standards					
	15. When I fail to live up to my own expectations, I feel I am not good enough					
	16. I usually cannot sleep because of worry when I cannot meet the goals I set for myself					
De-spondency	12. I always lack confidence with my academic scores					
	13. It is very difficult for me to concentrate during classes					
	1. I am very dissatisfied with my academic grades					