

Aesthetics and Stress in TVET: Enhancing Student Well-Being and Creativity

Shen Wen¹, Faizal Amin Nur Yunus^{1*}, Suhaizal Hashim¹

¹ Faculty of Technical and Vocational Education,
Universiti Tun Hussein Onn Malaysia, Parit Raja, Johor, 86400, MALAYSIA

*Corresponding Author: faizaly@uthm.edu.my
DOI: <https://doi.org/10.30880/jtet.2024.16.03.004>

Article Info

Received: 4th November 2024
Accepted: 17th November 2024
Available online: 23rd December 2024

Keywords

Mental health, stress, learning style,
TVET

Abstract

It is imperative to provide adequate attention and motivation to contemporary Technical and Vocational Education and Training (TVET) graduates. This will enable them to cultivate a sense of self-confidence and explore avenues for career advancement through entrepreneurial endeavors, rather than relying primarily on traditional employment prospects within the labor market. Nevertheless, students in the TVET field encountered certain challenges, primarily stemming from the pressure to meet expectations and possess skills that exceeded their capacities. Stress is a psychological condition that individuals encounter as a result of the combined effects of mental and physical strain. The emotional well-being of an individual can be disrupted by environmental variables that provide a threat or disturbance. Integrating aesthetic education with stress management in TVET education can provide a holistic approach to teaching future students. Focusing on both the artistic aspects of gastronomic and stress management can help students handle challenges and improve their creativity. This study was conducted to ascertain the variables that influence the stress levels of TVET students at a vocational college in Johor, Malaysia. The study's sample consisted of a total of 120 students. The questionnaires were employed as an instrument of gathering information pertaining to the surroundings and the individual's personality traits. The data that was gathered underwent a descriptive analysis. The results of the study indicate that the various personality variables exhibited a significant value ($M = 3.94$) on the stress levels experienced by the students. Additionally, the stress levels resulting from environmental factors were also shown to be notably high ($M = 4.05$). The obtained correlation coefficient ($r = 0.787$) indicates a strong and favorable association between the environment and an individual's personality. Nevertheless, the regression analysis findings indicate a lack of statistical significance ($r = 0.00, r < 0.05$), hence demonstrating the absence of a meaningful correlation between environmental and individual personality variables. In conclusion, this study provides evidence to support the notion that both contextual and individual personality variables significantly contributed to the elevated levels of stress experienced by students in the TVET field. The majority of students concurred that

their mental well-being and levels of stress will be influenced by both their surroundings and individual dispositions.

1. Introduction

In Malaysia, Technical and Vocational Education and Training (TVET) began in 1964 by establishing two TVET institutes to train young people for high-skill jobs and make them competitive in the marketplace. After more than 50 years, more than 500 TVET institutions teach kids different skills. The Malaysian Technical University Network (MTUN) is one of these organizations. It comprises four public technical universities in Malaysia (Yaakob et al., 2020). Community Colleges and Vocational colleges are two most established institution and a part of the Malaysian Ministry of Education that provide TVET training. Students who attend one of these schools will get an industry-recognized skills certificate to help them find better jobs and reduce youth unemployment even more. Beginning with the 10th Malaysia Plan, TVET education received considerable consideration. Efforts were made to provide access to high-quality TVET education and to increase the number of TVET graduates who can satisfy market demands (Minghat, Mustakim & Shahroni, 2022).

An active learning strategy that encourages critical thinking should be prioritized in TVET education. To ensure that Malaysian students are prepared to compete worldwide, the Malaysian Education Development Plan (PPPM) 2013–2025 outlines five goals for the Malaysian educational system. The five goals are access, quality, equity, unity, and efficiency (Yaakob et al., 2019). The Malaysian educational system also offers TVET programs as alternatives, concentrating on individuals with unique skills and interests to maximize their potential and critical thinking. By 2030, TVET education was intended to replace the nation's reliance on foreign labor by producing semi-skilled and skilled graduates. UNESCO describes TVET as an educational platform that supports academic pillars along with training and skill development for the workplace. Play a part in developing highly qualified people as potential labor supply sources (Subrahmanyam, 2020). Today's TVET graduates need to be emphasized and inspired. Hence, they are more self-assured in generating their career chances by becoming entrepreneurs rather than solely dependent and focused on finding employment in the labor market (Saibon et al., 2019).

In this TVET discipline, there are some difficulties for students. Because of this, TVET students frequently face stress, which can be both physical and mental and is associated with their way of life (Teane & Gombwe, 2022). For instance, if they experience depression, it will be influenced by both their surroundings and their circumstances at home. The appropriate parties will assist this student in improving their emotions. Therefore, they will require more care. Stress is a prevalent ailment and will have bad effects. Thus, students who endure pressure and stress should receive greater attention (Firmansyah et al., 2018). The environment can also contribute to stress, significantly altering a person. Individuals differ in how they react to stress in terms of indications and symptoms. For instance, some people under stress and strain would have a depressed reaction, while others can conceal it. Students that are under stress become antisocial and lose interest in their activities. Also, likely, they will not be interested in the interests they once enjoyed. Also, they will choose to be alone, and their communication will decline. Communication and interaction are crucial aspects of human life (Yanti & Nurwulan, 2021).

Stein and Bartone (2020) assert that everyone will have stress-related issues at some point in their lives, with studying or attending school being one of those issues. Students, especially those in the TVET field, will be reminded to divide their time between learning activities and learning hours. The youngster will feel the pressure and will have to exert effort to comply with whatever has been set up by the parents or the school following the wishes of the parents or the school. These kids occasionally only learn due to coercion, even though they genuinely do not want to. Students in the TVET field often feel stressed when they talk to their teachers and try to figure out how each teacher teaches. This is because each teacher has a unique teaching style. According to Tien, Hamid & Madar (2022), the transformation and restructuring of the curriculum bring changes and difficulties to students, which will also reduce the academic standard of the learning curriculum. When the curriculum and other changes occur, the superiors or school administration will adjust the learning method and the time spent teaching following the subjects chosen by the students.

Students will undoubtedly experience exhaustion and stress due to their academic responsibilities. According to studies, stress and depression are significant public health problems impacting college students who report feeling so pressured that it is impossible to function. It is college students most commonly reported psychiatric disease (Mofatteh, 2022). Moreover, major depressive disorder is described as a significant source of stress. Depression in students can cause anxiety problems, become addicted to drugs, do poorly in school, commit suicide, act in dangerous or aggressive ways, and increase their chances of having mental disorders as adults. According to research by Carroll et al. (2022), environmental factors other than academic, financial, family, social, and intrapersonal factors are the primary causes of stress. Students experience stress due to expectations and talents that exceed their capacities. This is one of the issues culinary course students face in the modern period,

as they must not only excel in terms of academics and abilities but also in terms of personality to determine their future and meet current criteria.

Stress is a condition produced by mental and physical stress, resulting in rage, discomfort, worry, tension, and extreme irritation. It can have both detrimental and good consequences on psychological health. Stressed individuals are more likely to hurt themselves. According to Saqib & Rehman (2018), stress can negatively impact academic achievement and job performance. Positive stress occurs when an individual is subjected to pressure, whereas negative stress causes an individual to give up in the face of pressure. Those afflicted with depression and anxiety will have diminished well-being and prefer to be alone. Stress and pressure should be considered because they are common diseases with negative consequences. Typically, pressure and stress harm an individual. According to Husky, Masfety & Swendsen's (2020) study on stress and stress among French college students, poor physical health harms mental health and is especially related to anxiety, stress, and depression. However, there are also instances in which stress has positive effects. Generally speaking, stress is a mental disorder caused by mental and physical stress.

Depression, pressure, and stress can manifest in children and adolescents. The environment causes stress, which can substantially impact an individual, manifesting differently depending on the individual. Kids that undergo stress will lose interest in activities, become antisocial, and have less communication (Pradoto, Haryono & Wahyuningsih, 2022). Contact and communication are crucial aspects of human existence. The inability to control stress and worry can harm an individual. A person's mental, emotional, spiritual, physical, and moral fortitude will be shaped by his or her ability to regulate emotions (Salaxiddinovna et al., 2022). People should learn to manage and control their emotions, so they do not take inappropriate acts and are certain there is a solution to every difficulty they confront.

It is crucial to maintain a harmonious educational atmosphere in vocational college students in Malaysia by balancing their aesthetic and stress levels. The aesthetics of learning spaces and the presentation of educational materials have a substantial impact on students' well-being and participation (Gao, 2023). Visually appealing and well-organized learning spaces have a positive impact on students, leading to increased relaxation, motivation, and focus, ultimately resulting in reduced stress levels. Nevertheless, an over focus on aesthetics, without taking into account the practical requirements of learning, could potentially result in heightened pressure to conform to specific standards, hence exacerbating students' stress levels (Richmond & Snowber, 2020). In order to attain equilibrium, educators and administrators must give precedence to both artistic concerns and the pragmatic requirements of students. This can be achieved by designing surroundings that are not only aesthetically beautiful but also practical and conducive to learning activities. By integrating soothing hues, sufficient illumination, and ergonomic furnishings, one may heighten comfort and alleviate anxiety, all while ensuring that the visual components do not detract from the primary educational goals (Skliarenko et al., 2023). As such, adopting a comprehensive and harmonious strategy can result in enhanced psychological well-being, superior academic achievements, and an overall more favorable experience for vocational college students in Malaysia.

TVET equips individuals with high skills to be used in the world of work as well as meet the needs of industry because graduates learn practically including undergoing industrial training. Therefore, TVET pedagogy is actually the best answer to future job needs in a short period of time if the practitioner really understands physically and spiritually (George et al., 2023). Thus, this study focused on the stress problem faced by vocational college students enrolled in a TVET program in Johor, Malaysia. Students experience stress due to expectations and talents that exceed their capacities. The primary objective of this study is to determine the amount of stress among students enrolled at Vocational Colleges based on environmental and individual personality characteristics. This study was also conducted to investigate the correlation between environmental stress levels and the personality traits of vocational college students in Johor.

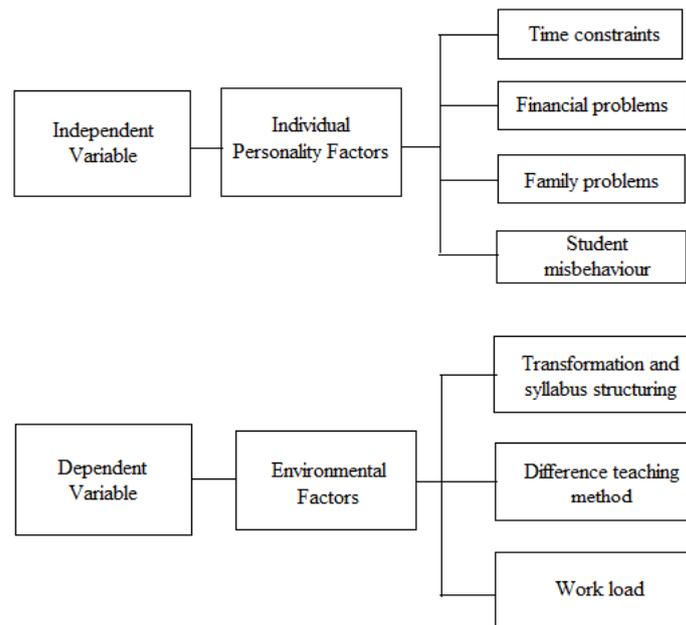


Fig. 1 Conceptual framework of this study

This conceptual framework in Figure 1 is used to illustrate the researcher's current research graphically. This source is modified from a study of Robbins et. al, (2009) where this stress model consists of three potential stressors, namely environmental factors, organizational factors and individual personality factors whose influence strength does not directly cause high levels of work stress but is moderated by individual differences such as perception, personality and social support. The researcher has chosen to use only two factors, namely environmental factors and personal factors that cause stress. This conceptual framework revealed two stress factors among students in this TVET field: individual personality variables as independent variables and contextual variables as dependent variables. Both variables will be examined to determine the relationship between the stress level caused by external factors and the personality of vocational college students based on the following hypotheses:

Null Hypothesis (H₀): There is no statistically significant link between the individual personality factors and environmental factors of vocational college students in Johor with respect to their degree of stress.

2. Methodology

This study's methodology comprises the study's framework, hypothesis, research design, sampling, data gathering methods, instruments, and data analysis techniques. Research design is an action plan that directs the research process by outlining how a study will go from its purpose and research questions to its findings (Abutabenjeh & Jaradat, 2018). This study's design is a complete planning procedure used to collect and evaluate data to enhance comprehension of a subject. In this study, the researcher employed a quantitative approach in the form of a descriptive survey administered by questionnaire.

The sample of this study consisted of TVET students enrolled in a TVET course at a vocational college in Johor, Malaysia. The researcher chose these students since there are only two vocational institutions in Johor, Malaysia, that offer gastronomic training and a total of 173 students in the population. To confirm the adequacy of data based on a simple random sampling technique, the researcher randomly selected 120 students from Krijie and Mogan's table as a sample. Questionnaires can boost the accuracy and sincerity of respondents' responses, and the researcher does not influence the responses. In this study, the researcher will utilize a series of questionnaires to determine the stress levels of TVET field students enrolled in a TVET program at a vocational college in Johor, Malaysia, based on environmental and individual personality factors. Respondents were given the questionnaires shown in Table 1, and the data collected was the result of the study.

Table 1 *Research instrument*

Section	Construct	No. of Questions	Item
Section A	Demographics	4	A1 – A4
Section B	Individual Personality Stress Level Factors		B1 – B15
	• Time restrictions	4	
	• Financial troubles	4	
	• Family issues	4	
	• Student misbehavior	4	
Section C	Environmental Stress Level Factors		C1 – C15
	• Transformation and curriculum organization	5	
	• Different Instructional Technique	5	
	• Work burden	5	

The questionnaire is divided into three sections: Part A, Part B, and Part C. Part A consists of four questions about the respondents' demographics and background. Section B consists of 16 questions regarding the stress levels of culinary students depending on their specific personality traits. In the meantime, Part C consists of 15 questions regarding stress levels based on external circumstances. The researcher has picked four experts to determine the instrument's reliability: two language experts, one content expert, and one counseling expert. Linguists were scrutinizing the usage of words and language to make the sentences easier to comprehend. At the same time, experts in the gastronomic and counseling fields analyze the same tools, respectively.

Then, 30 students enrolled in a TVET course from Melaka, Malaysia, were randomly chosen to respond to this questionnaire to determine the reliability of its items. The analysis conducted indicates that the obtained Alpha Cronbach value is 0.93. Therefore, the reliability of this questionnaire is high. Then, the gathered data must be meticulously evaluated for the researcher's study results to answer the research question accurately. The researcher analyzed the collected data using the Statistical Package for Social Science (SPSS) version 29.0 application. Data have been obtained through tables, numbers, percentages, frequencies, mean and standard deviation interpretations, and frequency distributions. The researcher employed a descriptive statistical approach to interpret the data clearly.

3. Result and Discussion

The study's findings have been gathered and analyzed based on the researcher's planned research questions. Three parts were used to analyze the data: Part A dealt with demographic information, Part B with individual personality factors, and Part C with environmental factors. The researcher then evaluated the data following the needs of the research question. The respondents' demographic data are shown in Table 2.

Table 2 *Information on the respondent's demographics*

Details	Dimension	Total	Percent (%)
Gender	Male	44	36.7
	Female	76	63.3
Parents Income	RM1000-RM2000	29	24.2
	RM2001-RM3000	32	26.7
	RM3001-RM4000	33	27.5
	RM4000 and above	26	21.7
Siblings	1 Person – 2 Person	24	20
	3 Person – 4 Person	54	45
	5 Person – 6 Person	33	27.5
	7 Persons and above	9	7.5
Age	16 Years Old	55	45.8
	17 Years Old	16	13.3
	18 Years Old	17	14.2
	19 Years Old	32	26.7

The extent to which the stress level is based on individual personality traits was the study topic addressed by this analysis, demonstrated in Part B of the questionnaire. Time restrictions, financial troubles, family issues, and student misbehavior were among the factors in part B, as indicated in table 3:

Table 3 Individual personality stress level factors

Dimension	Std. Deviation	Mean Value	Level of agreement
Time restrictions	1.16	3.73	High
Financial troubles	1.08	4.03	High
Family issues	1.11	4.03	High
Student misbehavior	1.08	3.95	High
Individual personality Factors	1.11	3.94	High

Hill, Goicochea and Merlo (2018) state that time restrictions were a major factor in student stress, exacerbated by students' ineffective time management and learning strategies. According to Abdullah, Razak & Hamzah (2020), an intense workload and time constraints make it impossible for students to finish their assignments. According to Rusdin and Ali (2019), time restrictions prevent students from successfully carrying out their learning process and lead to tension. Then, there is a high mean distribution for financial issues (M=4.03; SD=1.08). These results demonstrate how stress and mental health issues for students can go hand in hand. McIntyre (2018) states that students should set aside money to ensure they have enough for their educational needs. According to Nasir and Mansor (2021), a shortage of resources for studying might make students' emotions and concentration suffer. Furthermore, Talib & Ahmad (2019) claim that individuals on fixed incomes might be unable to pay for needs like food, clothing, education, and housing.

The study of family issues has demonstrated that having family issues will make it difficult for kids to concentrate. This results from their complicated family history, mental health issues, and role as the family's saviors. Students have to take care of their younger siblings when their parents are not home, and parents have too high expectations for their kids. This may cause tension and make it difficult for them to concentrate on their academic studies. Students cannot concentrate on their schoolwork since they must handle domestic duties when their parents are away (Muda, 2021). Students who are under stress find it difficult to concentrate on their academic studies.

Also, there is a high mean average result for student misconduct (M=3.95; SD=1.08). No matter whether a mistake is intentional or unintentional, pressure will still be felt by all students, according to studies. Students frequently find it difficult to focus in class when they act inappropriately. They may joke, speak with friends, or even be nasty to the teachers. Both parents should strongly emphasize education, and it must keep up with contemporary trends. A content, patient, and focused person will have less stress, making learning easier for them. The researcher then separated Part C into three additional pieces to calculate the stress level of students enrolled in TVET courses based on environmental conditions. The elements listed in section C were transformation and curriculum organization, different instructional techniques, and work burden as listed in table 4.

Table 4 Environmental stress level factors

Dimension	Std. Deviation	Mean Value	Level of agreement
Transformation and curriculum organization	1.04	3.88	High
Different Instructional Technique	0.85	4.30	High
Work burden	1.00	3.97	High
Environmental Factors	0.96	4.05	High

According to the analysis of the transformation and syllabus structuring aspects, students feel more stress and strain due to disruptions brought on by changes and transformations occurring in education. Students in vocational colleges now have access to industrial and technical practice, and the teaching and learning process presents a variety of difficulties due to the Vocational Education Transformation Strategic Plan. Tien, Hamid and Madar (2022) predict that this shift will also result in modifications to the curriculum that will result in a decrease in the academic content. Also, students are the most at-risk individuals in facing job pressure due to the changes and needs in the usage of information technology.

Different teaching methods consequently have a high mean distribution, which could make students pay more attention and require them to adjust their understanding. Conventional techniques provide little possibility for in-depth learning and self-reflection. Each teacher's explanation will vary depending on the student's prior

knowledge and comprehension, background, and experience. The workload component's high mean or mean distribution contributes to tiredness and stress. The amount of work required of students, which must be completed and turned in by the deadline, is one of the elements that contribute to stress. According to Jerrim and Sims (2021), the workload is the main contributor to the issue of work pressure, and students' poor time management is another reason why their assignments are late. Furthermore, the severe obligations and responsibilities of having a family have reportedly led some students to put off finishing work (Dhirasasna et al., 2021).

The statistical test must first pass the normality test to assess whether the full set of gathered respondent data is "well modeled," that is, distributed normally. Kolmogorov-Smirnov was utilized in this study since there were 120 (N=120) more participants than there were 50 responders. The Spearman's rho test can be employed for this study, as shown in Tables 5 and 6, if the p-value is less than 0.05, indicating that the data are abnormal.

Table 5 Significant value for individual personality factors

Dimension	Kolmogorov-Smirnov		
	Statistic	Df	Sig.
Time restrictions	0.153	120	0.000
Financial troubles	0.145	120	0.000
Family issues	0.194	120	0.000
Student misbehavior	0.161	120	0.000
Individual Personality Factors	0.126		0.000

Table 6 Significant value for environmental factors

Dimension	Kolmogorov-Smirnov		
	Statistic	Df	Sig.
Transformation and curriculum organization	0.147	120	0.000
Different Instructional Technique	0.127	120	0.000
Work burden	0.154	120	0.000
Environmental Factors	0.152		0.000

Environmental influences and unique personality traits both have a significant value of 0.000. Because the number is smaller than 0.05, it shows a substantial value that is not typical. As a result, the assumption and condition were satisfied. Hence Spearman's rho test was employed to construct a correlation test. In order to determine the relationship between the amount of stress based on external circumstances and the unique personality of the students at the state vocational college in Johor, the correlation test is crucial to this study. The Spearman rho correlation test was used to conduct a correlation test on all variables for the association testing, as shown in Table 7.

Table 7 The relationship between environmental factors and individual personality factors

Spearman's rho	Individual Personality Factors		Individual Personality Factors	Environmental Factors
		Correlation Coefficient	1.000	0.787**
		Sig. (2-tailed)		0.000
		N	120	120
	Environmental Factors	Correlation Coefficient	0.787**	1.000
		Sig. (2-tailed)	0.000	
		N	120	120

** . Correlation is significant at the 0.01 level (2-tailed).

Table 7 indicates a significant relationship between a person's surroundings and personality (Spearman's rho (ρ) = 0.787, $s > 0.05$). The Spearman's rho (ρ) correlation coefficient of 0.787 indicates a robust association between two variables, specifically individual personality factors and environmental factors. Spearman's rho correlation is a statistical measure employed to assess the presence of a monotonic association, which may not necessarily be linear, between two variables. This implies that a statistically significant association exists between individual personality factors and environmental factors, exhibiting either a positive or negative correlation. Nevertheless, it is crucial to acknowledge that a p-value beyond 0.05 suggests that the observed association is not statistically significant at the conventional significance level of 0.05. Based on the available evidence, it can be inferred that a notable association exists between individual personality factors and environmental factors. However, it is important to note that this link does not reach statistical significance at the conventional threshold of 0.05. This implies that the available statistical information is insufficient to establish a definitive conclusion regarding whether the observed association is attributable to random chance or is widely acknowledged across the broader population.

Results indicate insufficient evidence to reject the Null Hypothesis (H_0) of no significant link between individual personality factors and environmental factors at a significance threshold of $\alpha = 0.05$. Although Spearman's rho value of 0.787 suggests a strong correlation between variables, the significance value (s) exceeds α , preventing a statistically significant link at the given level and how it affects the stress level of the TVET course students at the vocational college in Johor, Malaysia. The stress levels of TVET students can be influenced by environmental influences and individual personality traits separately and in combination. Academic pressures, workload, a lack of resources, financial worries, time constraints, and interpersonal interactions are a few examples of environmental factors that might impact TVET students' stress levels. Students may experience stressful situations due to certain environmental influences, which can raise stress levels.

Extraversion, neuroticism, openness, agreeableness, and conscientiousness are examples of personality traits that can impact TVET students' stress levels. For instance, high levels of neuroticism might cause higher levels of stress, but high levels of conscientiousness can help people manage their stress better. Correlation analysis examines whether there is a significant relationship between unique personality qualities and the environmental factors that influence students' stress levels. The environment influences students' health and personalities (Huang & Li, 2021). The results of the study indicate that personality traits and specific contextual elements have a significant influence on how stressed-out students are. Also, a person's personality will be influenced by their environment and will rely on where they are in that situation. Social learning theory suggests that individuals learn and adopt behaviors, attitudes, and values through observation and interaction with their environment, including family, peers, and culture (Bandura, 1977). For example, a child who grows up in an environment where kindness and empathy are emphasized may develop a more caring and compassionate personality.

This is in line with the researcher's study's expected findings, which indicate a significant relationship between the environment and particular personality traits that affect the student's stress level. The null hypothesis is accepted because there is a significant relationship between environmental factors and unique personality features that influence students' stress levels. This suggests that human characteristics like personality increase together with environmental influences. A supportive and encouraging environment is important for students since it catalyzes enhanced learning (Wentzel, 2016). Interactions between environmental elements and a person's personality characteristics and stress levels in TVET students are also possible (Hamdan, 2017). For instance, a student with high levels of neuroticism might be more prone to feeling stressed out by academic obligations. In contrast, a student with high levels of conscientiousness might be better able to handle similar demands.

It is crucial to consider both elements and how they interact to properly comprehend the interaction between environmental influences and individual personality traits on stress levels among TVET students (Zainuddin & Abidin, 2017). To develop a comprehensive strategy to promote TVET students' mental health and well-being, stress management strategies for TVET students should consider environmental and personal aspects.

Table 8 Simple regression analysis

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	7.019	4.641		1.512	.133		
Individual Personality Factors	.922	.076	.747	12.207	.000	1.000	1.000

a. Dependent Variable: Environmental Factors

The regression test in question is developed through the utilization of simple regression analyses, which allow for the comparison of various constructs pertaining to both independent and dependent variables. Following the identification of a robust correlation between environmental factors and individual personality features in the correlation test, the researcher proceeded to conduct a regression analysis in order to comprehensively ascertain the extent to which environmental influences impact individual personality components. This phenomenon arises from the fact that while some research may identify a robust correlation between the two variables, it is not necessarily assured that the first variable would exert a causal influence on the second. Therefore, regression analysis is employed to determine the potential influence of environmental factors on specific personality traits, however it may not offer conclusive evidence about the resilience of certain personality attributes in the face of stress-inducing environmental circumstances.

The results of the regression analysis, with a correlation coefficient value of $r=0.00$ and a significance level of $r<0.05$, indicate that the findings are not statistically significant. Regression coefficients with correlation values of $r=0.00$ and $r<0.05$ indicate a weak or even nonexistent linear relationship between the individual personality factor and the environmental factor within the framework of the regression analysis. A conventional regression analysis would entail controlling for additional factors and ascertaining the presence of a statistically significant association between a specific personality characteristic and levels of stress. However, it is possible that the analysis overlooked certain contextual factors that have an influence on the stress levels experienced by students in the Technical and Vocational Education and Training (TVET) field. The utilization of basic regression analysis can provide a partial understanding of the association between individual personality traits and levels of stress. Nevertheless, it is imperative to take into account the complexity of the interaction and the possible impact of environmental factors (Tugade, Fredrickson, & Barrett, 2004).

Notwithstanding the notable association between these two variables, the findings of the regression analysis indicate that individual personality traits remain unaltered by the surrounding environment. Based on empirical findings, Ramón-Arbués et al. (2020) propose that students experiencing stress as a result of their surroundings are unlikely to concurrently experience stress stemming from their personal characteristics. It is imperative to acknowledge that the correlation between an individual's personality qualities and their level of stress is intricate and multifaceted, and that several environmental circumstances might exert influence over it. The influence of personality qualities on an individual's perception and management of stress is noteworthy. However, it is important to acknowledge that stress levels among TVET students can also be influenced by environmental factors such as workload, interpersonal interactions, and academic obligations.

Creating an environment that is favorable to both learning and well-being is vital in the context of vocational education in Malaysia, with a key emphasis on maintaining a balance between aesthetics and stress management. By adding aesthetically pleasant design features that promote relaxation and focus; while simultaneously considering the utilitarian demands of students, universities can minimize stress and increase the learning experience. This balanced approach not only supports academic performance but also adds to the general mental and emotional health of students, preparing them for the challenges of their future employment.

Therefore, a comprehensive method for comprehending stress in TVET students would involve examining the interplay between individual personality traits and contextual circumstances (Chou & Hecker, 2016). The proposed approach involves conducting a multivariate regression analysis to examine the relationship between personality traits, environmental factors, and stress levels. Hence, instead of making the assumption that individual personality factors and contextual conditions operate autonomously, a comprehensive examination of stress among TVET field students necessitates an analysis of the interconnected effects.

4. Conclusion

The coursework requirements for TVET courses, which can be difficult since they expect students to learn complicated technical skills and information quickly, are just one element that this study sheds light on. Students may experience tension and worry as a result of this. The second is a need for more resources, which claims that students in TVET professions could not have access to the tools, materials, or facilities they need, which might increase their stress levels. Workload also plays a role because it may be difficult and stressful for TVET students to juggle study with practical jobs, internships, or apprenticeships. Thirdly, financial problems since TVET students may have financial difficulties, such as paying for tuition fees or supporting themselves financially while studying. TVET students' stress levels can be significantly impacted by financial stress, among other things. It is critical to remember that these variables may interact, having a greater impact on TVET students' stress levels. Consequently, addressing these issues is essential to promote TVET students' mental health and well-being.

The investigation results show that several variables can negatively affect TVET students' mental health and raise stress levels. Workload, adjustments to the curriculum's design, time constraints, personal problems, and other elements are a few of them. Stress is a result of these factors, which is bad for children. There will be disruptions in the student's academic progress and poor outcomes. According to the overall results, there is a link

between environmental factors and personality traits in people. The studies' results show a substantial correlation between two elements, namely environmental influences and personal personality traits. Individual personality traits are influenced by their surroundings, as we know.

Acknowledgement

The authors would like to express their sincere gratitude to all individuals and institutions who contributed to the success of this study. We also extend our appreciation to our colleagues at Universiti Tun Hussein Onn Malaysia for providing valuable guidance and resources throughout the research process. Lastly, we thank our families and friends for their unwavering encouragement and understanding during the preparation of this manuscript.

Conflict of Interest

Authors declare that there is no conflict of interests regarding the publication of the paper.

Author Contribution

*The authors confirm contribution to the paper as follows: **Shen Wen:** Literature review, methodology, data collection and project administration. **Faizal Amin Nur Yunus:** Drafted the manuscript and provided substantial revisions formal analysis, and validation. Contributed to writing the results and discussion sections, conceptualization, methodology and resources. **Suhaizal Hashim:** Conceptualization, methodology and resources.*

References

- Abdullah, W., Razak, K., & Hamzah, I. (2020). Innovative Teacher Time Management in Islamic Education (Pengurusan Masa Guru Inovatif Pendidikan Islam). *The Online Journal of Islamic Education* Vol. 8, Issue 2, 1-7.
- Abutabenjeh, S., & Jaradat, R. (2018). Clarification of research design, methods, and methodology: A guide for public administration researchers and practitioners. *Teaching Public Administration*, 36(3), 237-258.
- Bandura, A. (1977). *Social learning theory*. Englewood Cliffs, NJ: Prentice-Hall.
- Carroll, A., Forrest, K., Sanders-O'Connor, E., Flynn, L., Bower, J. M., Fynes-Clinton, S., ... & Ziaei, M. (2022). Teacher stress and burnout in Australia: examining the role of intrapersonal and environmental factors. *Social Psychology of Education*, 25(2-3), 441-469.
- Chou, H. Y., & Hecker, R. (2016). Relationships among stress, personality, coping, and mental health in Taiwanese adolescents. *Journal of Child and Family Studies*, 25(3), 876-886. doi: 10.1007/s10826-015-0291-1.
- Dhirasasna, N., Suprun, E., MacAskill, S., Hafezi, M., & Sahin, O. (2021). A systems approach to examining Ph.D. students' well-being: an Australian case. *Systems*, 9(1), 17.
- Firmansyah, A., Setiawan, H., Suhandi, S., Fitriani, A., & Roslianti, E. (2018). Health Education for Families "The Treatment of Post-Circumcision Wounds with the Optimal Conventional Method (Pendidikan Kesehatan kepada Keluarga "Perawatan Luka Pasca Khitan Metode Konvensional yang Optimal"). *ABDIMAS: Jurnal Pengabdian Masyarakat*, 1(2), 53-56.
- Gao, C. (2023). Innovative Approaches to College Students' Aesthetic Education in the New Era. *Frontiers in Educational Research*, 6(5).
- Hamdan, A. R. (2017). The relationship between environmental factors and stress among technical and vocational education students in Saudi Arabia. *International Journal of Psychology and Behavioral Sciences*, 7(1), 1-5.
- Hill, M., Goicochea, S., & Merlo, L. (2018). *In Their Own Words: Stressors Facing Medical Students in The Millennial Generation*. Florida, USA: Medical Education Online.
- Huang, S. L., & Li, R. H. (2021). The effects of school environment on students' health: A systematic review. *International Journal of Environmental Research and Public Health*, 18(4), 1749.
- Husky, M. M., Kovess-Masfety, V., & Swendsen, J. D. (2020). Stress and anxiety among university students in France during Covid-19 mandatory confinement. *Comprehensive Psychiatry*, 102, 152191.
- Jerrim, J., & Sims, S. (2021). When is a high workload bad for teacher well-being? Accounting for the non-linear contribution of specific teaching tasks. *Teaching and teacher education*, 105, 103395.
- Minghat, A. D., Mustakim, S. S. B., & Shahroni, N. (2022). Literature Review: Technical and Vocational Education and Training (TVET) in Malaysia. *ASEAN Journal for Science Education*, 1(2), 89-102.
- Mofatteh, M. (2021). Risk factors associated with stress, anxiety, and depression among undergraduate students. *AIMS Public Health*, 8(1), 36.
- Nasir, N., & Mansor, M. (2021). Teacher Challenges in Implementing Teaching and Learning at Home (PdPR): An Initial Observation (Cabaran Guru dalam Melaksanakan Pengajaran dan Pembelajaran di Rumah

- (PdPR): Suatu Pemerhatian Awal). *Malaysian Journal of Social Sciences and Humanities (MJSSH)*, 416 - 421.
- Pradoto, H., Haryono, S., & Wahyuningsih, S. H. (2022). The role of work stress, organizational climate, and improving employee performance in implementing work from home. *Work*, (Preprint), 1-11.
- Ramón-Arbués, E., Gea-Caballero, V., Granada-López, J. M., Juárez-Vela, R., Pellicer-García, B., & Antón-Solanas, I. (2020). The prevalence of depression, anxiety, and stress and their associated factors in college students. *International Journal of Environmental Research and Public Health*, 17(19), 7001.
- Richmond, S., & Snowber, C. (2020). *Landscapes of aesthetic education*. Cambridge Scholars Publishing.
- Robbins S.P., Judge T.A., Sanghi S (2009) *Organizational Behaviour*, 13th Edition, Dorling Kindersley (India) Pvt. Ltd, p. 37,701--707,194,197,215,234,90-92,
- Rusdin, N., & Ali, R. (2019). *Practices And Challenges Of 21st Century Learning Implementation (Amalan Dan Cabaran Pelaksanaan Pembelajaran Abad Ke-21)*. Kuala Terengganu, Terengganu: Research Institute for Islamic Product and Malay Civilization (INSPIRE). McIntyre (2018)
- Saibon, R. A., Kamis, A., & Zainol, Z. (2019). Entrepreneurship education: Unemployment issues, people's well-being and entrepreneurial Intentions among TVET graduates in Malaysia. *International Journal of Psychosocial Rehabilitation*, 23(4), 953-965.
- Sajjani, N., Mayor, C., & Tillberg-Webb, H. (2020). Aesthetic presence: The role of the arts in the education of creative arts therapists in the classroom and online. *The Arts in psychotherapy*, 69, 101668.
- Salaxiddinova, M. G., Tulaboevna, T. G., Zairjanovna, S. D., & Mamadjanovna, K. M. (2022). Emotional Self-Regulation of the Behavior of Pedagogical Workers in the System of Integrated (Inclusive) Education. *Texas Journal of Multidisciplinary Studies*, 14, 17-20.
- Saqib, M., & Rehman, K. U. (2018). Impact of stress on students' academic performance at secondary school level at District Vehari. *International Journal of Learning and Development*, 8(1), 84-93.
- Skliarenko, N., Didukh, A., Kolosnichenko, O., & Pashkevych, K. (2023). Multifunctional Space of Art-Relaxation in an Educational Institution: Design Concept Revision. *The International Journal of Designed Objects*, 17(1), 45.
- Stein, S. J., & Bartone, P. T. (2020). *Hardiness: Making stress work for you to achieve your life goals*. John Wiley & Sons.
- Subrahmanyam, G. (2020). *UNESCO-UNEVOC Study on the Trends Shaping the Future of TVET Teaching*. UNESCO-UNEVOC International Centre for Technical and Vocational Education and Training.
- Talib, R., & Ahmad, H. (2019). Eligibility Assessment of Asnaf Fakir and Poor (Penilaian Kelayakan Asnaf Fakir Dan Miskin). *International Journal of Humanities Technology and Civilization (IJHTC)*, 23-41. Muda, 2021
- Teane, F. M., & Gombwe, R. (2022). Self-Efficacy as a Tool to Enhance Students' Classroom Participation: TVET/FET College's Student Views on the Causes of Student Passivity. *Community College Journal of Research and Practice*, 1-13.
- Tien, E. C., Hamid, H., & Madar, A. R. (2022). Hubungan Antara Efikasi Kendiri, Beban Tugas dan Masalah Kesihatan Mental dalam Kalangan Pensyarah Kolej Vokasional: Relationship Between Self-Efficacy, Workload and Mental Health among Lecturers in Vocational Colleges. *Online Journal for TVET Practitioners*, 7(1), 1-7.
- Tugade, M. M., Fredrickson, B. L., & Barrett, L. F. (2004). Psychological resilience and positive emotional granularity: Examining the benefits of positive emotions on coping and health. *Journal of Personality*, 72(6), 1161-1190. doi: 10.1111/j.1467-6494.2004.00294.x
- Wentzel, K. R. (2016). Classroom interactions and motivation: The role of teacher support and student autonomy. *Current Opinion in Psychology*, 10, 44-48.
- Yaakob, M. F. M., Awang, H., Ismail, M. Z., Zain, F. M., Kasim, M., & Adnan, A. A. Z. (2020). Backward and forward reviews on technical and vocational education and training (TVET) in Malaysia: The evolution and ICT-driven prospect. *Universal Journal of educational research*, 8(6), 2197-2203.
- Yaakob, M. F. M., Musa, M. R., Habibi, A., & Othman, R. (2019). Strategic management and Strategic Planning in school: Is it worth it for teachers? *Academy of Strategic Management Journal*, 18(3), 1-6.
- Yanti, M. P., & Nurwulan, N. R. (2021). The Influence of Online Learning on Student Depression, Stress, and Anxiety (Pengaruh Pembelajaran Daring Pada Depresi, Stres, dan Kecemasan Mahasiswa). *Jurnal Muara Pendidikan*, 6(1), 58-63.
- Zainuddin, M., & Abidin, Z. (2017). The role of personality traits and environmental factors in predicting stress among technical and vocational education students. *Journal of Technical Education and Training*, 9(2), 1-10.