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The Interest and Stress Level Among Fast-Track Architecture Students in UiTM

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Abstract

Boosting students' disciplinary interest has long been considered an important mechanism to increase student success and retention in architecture education. However, despite this strong interest in the field, architecture is one of the education courses contributing significantly to high rates of mental health issues. According to the Royal Institute of British Architects (RIBA) educational statistics for 2021/2022, about 4% of architecture students have disclosed stress issue. Therefore, this study aims to identify the level of interest among architecture students and their corresponding stress levels. 310 fast-track architecture students from Universiti Teknologi MARA participated in the study by answering a distributed questionnaire. The findings indicate that fast-track architecture students exhibit a high average mean score in both interest level (M= 4.16) and stress level (M=3.69). For interest levels, there is a statistically significant difference across the different years of study (p-value < .001), but no significant difference based on the type of financial resources during study or family socio-economic status. Regarding stress levels, there are statistically significant differences across the different years of study (p-value = .003) and financial resources during study (p-value = .005) but not based on family socio-economic status. Spearman's rho test revealed there are a relationship between interest level and stress level among fast-track architecture students. The study findings support the use of the instrument to gain a broad understanding of students' individual interest and stress levels. With minor adaptations, the instrument could also be evaluated for use in other architecture disciplines and for use by other populations.

Keywords: *Architecture education, fast-track, student interest, stress level*

INTRODUCTION

Stress is a pervasive human challenge, comparable to the inevitability of death and taxes, affecting individuals irrespective of their socioeconomic status (Ibrahim & Mohamad Rosdi, 2020). Yikealo et al. (2018) also mentioned that stress is an unavoidable aspect of life that affects diverse groups of people, regardless of their age, gender, educational background, or socioeconomic status. Despite this, stress, depression, and anxiety remain common mental health issues among college students. In Malaysia, poor mental health among university students is a significant concern. Kotera et al. (2021) found that 30% of Malaysian students aged 16 and above experience mental health problems. The

Malaysia National Health and Morbidity Research indicates that 11.2% of adults aged 19 and above face mental health issues (Hassan et al., 2017). This age group often coincides with college years, a critical period for personal development characterized by increased academic pressures (Xiao & Liu, 2021). Stress, a prevalent mental health issue, is notably observed among undergraduate students (Ibrahim & Mohamad Rosdi, 2020). According to Othman et al. (2013) around 60% of university students drop out within the first two years due to stress, and 50% of those seeking mental health services report study-related difficulties. Even though stress issues are common among college students in general, they are particularly prevalent among architecture students. The current study is focusing on architecture students due to the recognition of the relatively high levels of stress involved in this training (Xie et al., 2021).

The Royal Institute of British Architects (RIBA) statistics show that 4% of architecture students have reported mental health issues, a trend that has remained consistent over the years (Mirza, 2022). Architecture education is known for its stressful learning environment, with significant stress levels and psychological stress (Gümüşburun Ayalp & Çivici, 2020). Factors contributing to stress among architecture students can be categorized into personal, academic, and environmental factors (Kamarazaly et al., 2021). Academic factors include workloads, perfectionist culture, critique sessions, subjective aesthetic evaluations, and financial pressures. 45.8% of architecture students experience substantial stress due to financial issues, particularly for students from lower socioeconomic backgrounds who struggle to balance academic demands with financial responsibilities (Reddy & Vaishnavi, 2020). Financial anxiety is associated with negative social outcomes, such as feelings of isolation and conflicts between academic and social life. Environmental factors, such as the pressure to work overnight due to peers and tutor expectations, also impact stress. Architecture schools often provide 24-hour studio access, which can lead to a depletion of energy and further impact academic performance and interest levels Kirkpatrick (2018). In addition, Acer (2016) demonstrated that architecture students experience high levels of burnout due to demand, with a correlation between emotional exhaustion and academic inefficacy.

Interest in an activity, object, or topic is a psychological state that develops through ongoing interactions between an individual and the activity or subject (Lee, 2017). It is often associated with enjoyment and fulfillment. However, personality traits and expectation levels can affect burnout, which can lead to long-term exhaustion and reduced interest Chen & Darst, 2022). Burnout can result in a decline in academic performance and a sense of detachment from studies, eroded interest and engagement (Xie et al., 2021). Architecture students often experience physical and intellectual burnout due to stress, leading to demotivation during coursework. As students' progress, their interest evolves, becoming an intrinsic part of their motivation. The Hidi 4-Phase Interest Model focuses on autonomy, value, and engagement as integral components that shape interest phases (Renninger & Hidi, 2022). Feeling triggers initial curiosity and excitement, value sustains interest by demonstrating the relevance and significance of the subject over time, and engagement represents the depth and commitment of the student's involvement (Roure & Lentillon-Kaestner, 2022). Understanding the nuances of interest among architecture students is crucial for shaping the future of the profession (Roure & Lentillon, 2022).

The research gap in understanding interest and stress levels among undergraduate students is significant, particularly for fast-track architecture students at public universities (Dopatka et al., 2020; Frontini et al., 2021; Kamarazaly et al., 2021). Malaysia has twelve public universities, three state universities, and seven private universities with architectural programs, but UiTM is the only public university offering a RIBA-accredited fast-track architectural program Wahid et al. (2023). These programs present unique challenges and stressors for students, making it crucial to explore how these students navigate their interest and stress levels during their studies. Furthermore, the research aims to identify interest levels, stress levels, differences in interest levels based on years of study, family socio-economic status, and financial resources, and investigate the relationship between interest and stress levels among fast-track architecture students. The study also aims to provide valuable insights into the unique challenges and stressors faced by students in fast-track architecture programs.

LITERATURE REVIEW

1. Interest in Architectural Studies by Students

The degree to which students are emotionally, cognitively, and psychologically invested in a subject is referred to as academic interest. In the field of architecture, student motivation, persistence, and performance are greatly enhanced by interest. Initial situational interest, changing situational interest, early individual interest, and established individual interest are the four stages of interest development, according to Renninger and Hidi (2022). Individual interest students typically exhibit a high level of dedication and a strong desire to learn more about the subject. According to Chen and Darst (2022), interest is built on more than just enjoying a subject; it is also strongly correlated with perceptions of autonomy, value, and chances to grow as a person via education. Students in architectural majors frequently view their education as an exclusive means of expressing themselves. Students become far more engaged when they believe that the material is pertinent to their identity and professional objectives.

According to a study by Roure and Lentillon-Kaestner (2022), despite academic difficulties, pupils who are very interested exhibit profound engagement and intrinsic motivation. The fast-track architecture program at UiTM gives SPM graduates an early chance to delve into the realm of design, which adds to the first buzz that ignites curiosity. However, some research indicates that when workloads and academic stress rise, particularly during the last years of education, interest levels may decline (Ekaputri et al., 2021). This explains why first-year students are more interested than final-year students in your study.

2. Students of Architecture's Stress Levels

Among the academic disciplines that are frequently linked to elevated levels of academic stress is architecture. Numerous things contribute to this stress, including an overwhelming workload, short project deadlines, and instructors' subjective assessments. Stress is a complicated and interconnected phenomenon that involves personal, academic, and environmental elements, according to Gümüşburun Ayalp and Çivici (2020), who employed the structural equation modelling (SEM) approach. When architecture students believe that outside forces are undermining their creativity, they frequently become emotionally exhausted and lose motivation, according to research by Xie et al. (2021). They also discovered that the main causes of stress were unclear expectations from instructors, peer competition, and studio assignment deadlines.

Additionally, one of the main causes of stress is money related. Potter et al. (2020) claim that financial concern frequently affects students who depend on student loans or scholarships, which can interfere with their ability to focus on class. The 'all-nighter culture' in architecture studios has turned into a poisonous norm that deteriorates students' mental health, according to Kirkpatrick (2018), who supports this stance.

3. The Relation Between Stress and Interest

Students' interest and stress have a complicated but important link. High interest might serve as a protective factor against academic stress, according to studies. Strong interest in a subject has a negative correlation with stress, meaning that students who are truly interested in their studies are more likely to survive and handle stress better, according to Lee (2017). This is backed by Ryan and Deci's (2020) self-theory, which holds that people are more resilient to adversity when they are motivated by internal motivation and a sense of autonomy. However, disinterested tension causes kids to burn out and perform worse (Celik & Oral, 2013). Stress isn't always a bad thing in architecture. If managed constructively, a modest amount of stress can spark curiosity and creativity (Yikealo et al., 2018). Stress, however, can undermine interest and result in emotional tiredness and discouragement in the area when it surpasses a student's capacity for self-management (Spiridon & Karagiannopoulou, 2015).

METHODOLOGY

The researcher employs a quantitative descriptive research method and uses instrument questionnaire to collect the data. The research sampling used is a random sampling of population architecture students in UiTM Campus Sri Iskandar, Perak, and Puncak Alam, Selangor. Universiti Teknologi MARA (UiTM) was chosen for this study because it offers a unique fast-track architecture program for students directly from Sijil Pelajaran Malaysia (SPM) without requiring a diploma or matriculation. This distinct admission approach sets UiTM apart from other universities. Based on Krejcie and Morgan's table, the population size on both UiTM is (N = 745), the sample size for the sampling research is approximately (n= 310).

The study uses a three-part questionnaire: demographic information, interest measurement with Architecture Interest Questionnaire (AIQ) Knekta et al. (2020) and stress assessment with The Perceived Stress Scale (PSS) (Kamarazaly et al., 2021). The goal is to explore the levels of interest and stress among fast-track architecture students and analyse the correlation between these two variables. The six- demographic questions are designed to gather personal details such as gender, age range, year of study, family socio-economic status, and financial resources available to students during their academic pursuits. The AIQ and PSS are assessed using a Likert scale. The measurement of the AIQ is based on a six-point Likert scale, where 1 denotes "Strongly Disagree" and 6 denotes "Strongly Agree." The scale also includes "Disagree," "Slightly Disagree," "Slightly Agree," and "Agree" to reflect different levels of agreement. For the Perceived Stress Scale (PSS), a five-point Likert scale is used where 1 means "Never" and 5 means "Very Often." The scale includes "Almost Never," "Sometimes," and "Fairly Often" as intermediate levels to measure how often respondents experience stress.

By using a panel of four professionals with backgrounds in psychology, architecture, and education, we were able to establish content validity. To verify the instrument's dependability, a pilot study was carried out with 30 UiTM architecture students who were not included in the main research sample. Both scales showed strong internal consistency, with Cronbach's alpha values of α =.894 for the interest instrument and α =.928 for the stress instrument. Following data collection, the first two goals, interest and stress levels, were addressed through descriptive analysis using SPSS Version 27. Because of the non-normal distribution of the data, the Kruskal-Wallis test was used for the third and fourth objectives. Lastly, the fifth goal involved analysing the relationship between stress levels and interest using Spearman's rho.

RESULT

1. Demographic respondent

This section provides a detailed overview of the participants' demographic profiles, including gender, age range, year of study, family socio-economic status, and financial resources during their studies. The results, presented in Table 1, show the frequencies of these characteristics and offer insights into the diversity and representativeness of the architecture students.

Based on Table 1, among the 310 architecture students surveyed (N = 310), there were more women (59.4%) than men (40.6%). The largest age group was 20 to 22 years old (39.0%), with fewer students in the other age brackets. Most respondents were in their fourth year of study (31.6%). The majority came from middle socio-economic backgrounds (76.8%), and most relied on PTPTN study loans and parental support (33.9%), followed by JPA scholarships (24.2%).

2. Interest level of fast-track architecture student

This section analyses the interest levels of fast-track architecture students at UiTM by calculating the mean scores and standard deviations. The purpose of this analysis is to evaluate the average level of interest among students and to assess the distribution and variability of their responses. The findings are displayed in Table 2.

Table 1 Frequency count of demographic variable

Item	Demographic	Statistic	
		n	***%***
Gender	Men	126	40.6
	Women	184	59.4
Range of age	18 – 20 years old	104	35.5
	20 – 22 years old	121	39.0
	22 – 24 years old	67	21.6
	24 – 26 years old	18	5.8
Year of study	1st year semester	88	31.6
	2nd year semester	84	27.1
	3rd year semester	40	12.9
	4th year semester	98	31.6
Family socio-economic status (SES)	Low	41	13.2
	Middle	238	76.8
	High	31	10.0
Financial resources during study	PTPTN study loan	105	33.9
	JPA Scholarship	75	24.2
	Parents	105	33.9
	MARA Study loan	24	7.7
	Others	1	0.3

The interest level test for 310 UiTM architecture students showed that items with mean scores of 4.48 (SD = 1.04), 4.90 (SD = 0.92), 4.42 (SD = 0.98), and 4.51 (SD = 1.22) fell into the high-interest range (5.18 to 6.00). Most other items scored in the moderate-high interest range (3.51 to 4.33). The overall mean interest score for the group is 4.16, reflecting a generally high to moderate-high level of interest in their architecture coursework. The highest mean score is for Item 5, which indicates that "acquiring new knowledge in architecture study is enjoyable" with a mean of 4.90 (SD = 0.92), reflecting a high level of interest. Conversely, Item 11, which asks about the voluntary reading of architecture-related materials, has the lowest mean score of 3.52 (SD = 1.12), showing a lower level of interest. These findings suggest that, on average, students are highly enthusiastic and engaged in their architecture studies, with a significant proportion demonstrating strong interest in their academic pursuits.

Table 2 Interest level among fast-track architecture students in UiTM

No.	Item	Statistic	
		M	***SD***
1	I am always motivated to study in architecture.	4.21	1.08
2	After a long weekend or break, I eagerly anticipated returning to architecture classes.	3.80	1.06
3	Participating in architecture classes boosts my mood.	4.13	1.08
4	Reading article or sources related to architecture study bring me happiness.	4.48	1.04
5	Acquiring new knowledge in architecture study is enjoyable to me	4.90	0.92
6	My studies in architecture are closely tied to who I want to become as a person.	4.33	1.31
7	Learning in architecture study are more important than any other hobbies.	3.52	1.34
8	I am confident that studying in architecture positively influence my personality.	4.32	1.24
9	I feel sense of fulfilment when I engage myself with architecture study.	4.24	1.03
10	I often talk to other friends about architecture study outside of class	4.18	1.34

continued

11	In my free time, I read magazines, articles or books related to architecture voluntarily.	3.52	1.12
12	If I am watching TV or surfing internet, I get hooked on architecture-related programs or sites.	4.42	.98
13	I follow news stories related to architecture via digital via digital media (e.g., podcast, online video, blogs, e-books, twitter, Instagram, TikTok)	4.51	1.22
14	I visit architecture -related exhibits (e.g., museum) as often as I can	3.97	1.36
15	I look forward to attend architecture related presentation or seminars either offline or online.	3.90	1.22
	Average	4.16	0.96

3. Stress level of fast-track architecture student

The study examines the stress levels of fast-track architecture students at UiTM using mean scores and standard deviations to understand their average stress level and the distribution and variability of their responses, as presented in Table 3.

Table 3 Stress level among fast-track architecture students in UiTM

No.	**Item**	**Statistic**	
		M	***SD***
1	I feel overwhelmed by the workload and demands or architecture studies throughout these	3.97	.85
2	I feel worried about the limited time available for ideation, development and refinement of my studio projects in architecture.	4.30	.91
3	I feel overwhelmed by the large amount of credit hours on design project subject.	3.86	1.11
4	I feel anxious to get sleep and et until all works are done.	3.88	1.08
5	I feel struggled to find a large number of materials and sources to complete my work project.	3.59	.94
6	I feel doubted with my ability to handle my work task especially when submission date is due.	3.91	1.10
7	I feel overwhelmed by overload of other subject assignment beside design project work.	3.95	1.01
8	I feel troubled when I always need to stay up until morning to complete my work.	3.75	1.16
9	I feel worried about meeting the standards and requirement set by studio instructors in design projects.	4.10	.94
10	I feel worried about the level of competition among student's studio work.	3.89	1.03
11	I feel strained because I need to push the boundaries of design and explore innovative solutions in my projects.	3.77	1.05
12	I feel tensed about balancing my artistic expression and the requirement of design project.	3.81	.97
13	I feel overwhelmed by the complexity and creativity requirement in design project.	3.94	.94
14	I feel nervous that sometimes my progress is slower compared to my fellow studio mates in design project.	4.21	.96
15	I feel overwhelmed when I cannot reach my target grade in design project.	4.12	.98
16	I feel anxious about receiving feedback and critique during presentation design project.	3.70	1.07
17	I feel troubled by the intensity during critique and jury session.	3.60	1.02
18	I feel tensed when presenting my design project in front of studio mates, instructor and jury.	3.68	1.13
19	I feel anxious during internal and external evaluation session on final design project works.	3.93	1.04
20	I always feel tensed during defending my design project during critique session.	3.84	.96
	Average	3.69	0.96

The Perceived Stress Scale (PSS) test to measure stress levels was administered to a sample of 310 architecture students at UiTM (N=310). Based on Table 3, the average range of mean scores indicates high (3.40 to 4.19) to very high (4.20 to 5.00) stress levels. The descriptive statistics show that Item 2 has the highest mean score of 4.30 (SD = 0.91), followed by Item 14 with a mean score of 4.21 (SD = 0.96), both categorized as very high stress levels. Items with high mean scores in the stress level category include Item 1 (M = 3.97, SD = 0.85), Item 3 (M = 3.86, SD = 1.11), Item 4 (M = 3.88, SD = 1.11), and others listed in the analysis. These scores indicate that students experience considerable stress during their studies. Overall, the mean score for stress levels among fast-track architecture students at UiTM is 3.69, indicating a generally high level of stress in this cohort. The highest mean score is for Item 2, where students feel worried about limited time for studio projects, indicating very high stress (M = 4.30, SD = 0.91). The lowest mean score is for Item 5, related to struggling to find materials, indicating high stress but lower than very high stress (M = 3.59, SD = 0.94). Overall, students experience significant stress, with time constraints for projects being the most stressful factor.

4. The differences of interest level fast-track architecture student based on years of study, family socio-economic status and financial resources during study

This section examines the interest level of fast-track architecture students based on variables such as study years, family socio-economic status, and financial resources. The non-parametric Kruskal Wallis H test was used to analyze the data, which is not normally distributed as in Table 4.

Table 4 The differences of interest level fast-track architecture student based on years of study, family socio-economic status and financial resources during study.

	Variable	**Categorized**	**Mean rank**	**Kruskal Wallis test**	**Statistic**	
					df	***Asymp. Sig***
Interest level	Years of study	1st year of semester 2nd year of semester 3rd year of semester 4th year of semester	186.41 174.38 105.56 131.94	33.429	3	<.001
	Family socio-economic status	Low Middle High	138.28 161.96 128.69	5.5.30	3	.063
	Financial resources during study	PTPTN study loan JPA Scholarship Parents MARA Study loan Others	161.86 144.91 153.58 174.65 24.00	4.880	3	.300

The Kruskal-Wallis H test indicated statistically significant differences in interest levels across different years of study (χ^2 (3, N=310) = 33.429, p < .001). The p-value is less than .05, confirming the significance of these differences. The effect size of .108 is considered medium. This analysis shows that students' interest levels vary significantly with the year of study, with first-year students reporting higher interest levels (M = 186.41) compared to third-year students (M = 105.56). The Kruskal-Wallis H test revealed no statistically significant differences in interest levels across family socio-economic status, χ^2 (3, N=310) = 5.530, p = .063. The p-value is greater than .05, indicating non-significance. The effect size is small (.017). This analysis shows that students' interest levels do not significantly depend on their family socio-economic status. Despite this, middle socio-economic status students report higher interest levels (M = 161.96) compared to high socio-economic status students (M = 128.69). The Kruskal-Wallis H test indicated no significant differences in interest levels based on financial resources during study, χ^2 (3, N=310) = 4.880, p = .300, with a small effect size (.016). Despite this, students with MARA study loans reported higher interest levels (M = 174.65) compared to those with other financial resources (M = 105.56).

5. The differences of stress level fast-track architecture student based on years of study, family socio-economic status and financial resources during study

This section examines the variations in stress levels among fast-track architecture students according to the academic year, family socioeconomic status, and study budget. Because the data are not normally distributed and satisfy the required assumptions, the non-parametric Kruskal-Wallis H test were used. The test's outcomes are shown in Table 5.

Table 5 The differences of stress level fast-track architecture student based on years of study, family socio-economic status and financial resources during study.

	Variable	**Categorized**	**Mean rank**	**Kruskal Wallis test**	**Statistic**	
					df	***Asymp. Sig***
Interest level	Years of study	1st year of semester 2nd year of semester 3rd year of semester 4th year of semester	151.14 132.70 150.69 180.92	13.673	3	.003
	Family socio-economic status	Low Middle High	163.53 153.55 159.71	.520	3	.771
	Financial resources during study	PTPTN study loan JPA Scholarship Parents MARA Study loan Others	159.58 184.68 138.16 155.59 302.50	14.924	3	.005

The Kruskal-Wallis H test indicated statistically significant differences in stress levels across different years of study, χ^2 (3, N=310) = 13.673, p = .003. With a p-value less than .05, the differences are considered significant. The effect size is .044, indicating a small effect size. The analysis shows that students' stress levels vary significantly depending on their year of study. Fourth-year students report higher stress levels (M = 180.92) compared to second-year students (M = 132.70). Then the test revealed no statistically significant differences in stress levels across family socio-economic status, χ^2 (3, N=310) = .520, p = .771. With a p-value greater than .05, the differences are not significant. The effect size is .001, indicating a very small effect size. The analysis shows that students' stress levels do not significantly depend on their family socio-economic status. However, students from low socio-economic status report higher stress levels (M = 163.63) compared to those from middle socio-economic status (M = 153.55). The test revealed statistically significant differences in stress levels across financial resources during study, χ^2 (3, N=310) = 14.924, p = .005. With a p-value less than .05, the differences are considered significant. The effect size is .048, indicating a small effect size. The analysis shows that students' stress levels vary significantly depending on their financial resources during study.

6. The relationship between the interest and stress level of fast-track architecture student in UiTM

The relationship between interest and stress levels among UiTM fast-track architecture students is examined in this section. Spearman's rank-order correlation coefficient, also known as Spearman's rho (ρ), is used for the study because the data are not regularly distributed. The results are presented in Table 6. Table 6 shows that Spearman's rho test indicates a statistically significant but very weak negative correlation between interest and stress levels among fast-track architecture students, ρ (309) = -0.117, p = 0.039. This result suggests that higher interest levels are slightly associated with lower stress levels, although the correlation is minimal.

Table 6 The relationship between the interest and stress level of fast-track architecture student in UiTM.

			Interest	**Stress**
Sperman's rho	Interest	Correlation coefficient	1.000	-.117
		Sig. (2 tailed)		.039
		N	310	310
	Stress level	Correlation coefficient	-.117	1.000
		Sig. (2 tailed)	.039	
		N	310	310

DISCUSSION

1. Interest level among fast-track architecture students

According to the research, students enrolled in fast-track architecture programs show a high degree of interest in engagement with, and excitement for their accelerated program. The four-phase model of interest development by Knekta et al. (2020), which emphasises the significance of interest in boosting academic motivation and engagement, is consistent with the interest levels, which range from high to moderate-high. Table 7 summarises the 4-phase model analysis based on the findings.

Table 7 Summary of average mean score interest analysis

Dimension	**Average score**	**Highest rated item**	**Lowest rated item**
Feeling	4.25	Acquiring new knowledge in architecture (M=4.90)	Participating in classes boosts mood (M=4.13)
Value	4.06	My studies are tied to who I want to become (M=4.33)	Learning is more important than hobbies (M=3.52)
Engagement	4.07	Following news stories via digital media (M=4.51)	Reading related materials in free time (M=3.52)

O'Keefe & Harackiewicz (2017) indicate that high interest levels drive motivation. The challenge of defining 'value' underscores the need for improved curricula, but high student interest reflects a well-designed program. The study shows that autonomy drives fast-track architecture students' motivation and engagement, aligning with Renninger & Hidi (2022) and Ryan & Deci (2020) on intrinsic goals. Students view architecture as vital for their growth, and our findings challenge Knekta et al. (2020) by highlighting high engagement and the importance of autonomy for academic success (Dunn & Zimmer, 2020; Ekaputri et al., 2021). The study shows that students see architecture as crucial for their personal growth and career goals. High 'Value' scores reflect that students view their studies as key to their identity and future aspirations. This aligns with Ryan & Deci (2020) research on the importance of understanding students' perspectives and offering opportunities for self-directed learning. Students are highly engaged in their studies, contradicting Knekta et al. (2020) and demonstrating that autonomy and intrinsic motivation are key to effective learning (Dunn & Zimmer, 2020; Ekaputri et al., 2021; Ryan & Deci, 2020). Overall, mentioning that the high levels of student interest reflect a strong dedication to architecture, providing a solid foundation for future success. Nurturing this enthusiasm is crucial for shaping students' academic and professional futures.

2. Stress level among fast-track architecture students

The study finds that most fast-track architecture students at UiTM experience moderate academic stress, with some facing high levels of stress. This indicates significant stress throughout their studies. Consistent with the transactional theory of stress and coping, there is a positive relationship between academic stress and psychological distress (Kristensen et al., 2023). Students face pressure from heavy

workloads, family, peers, and lecturers, which can lead to anxiety and depression (Natasha Amin et al., 2021). This study aligns with Yikealo et al. (2018) showing that excessive workloads and time constraints cause significant stress in study. The analysis reveals that time constraints for studio projects are the biggest stressors for students. This finding is supported by previous research Yikealo et al. (2018) which identifies similar stressors such as preparing for projects and managing large volumes of content. The analysis breaks down stress factors into three categories: personal, academic, and environmental. Table 8 summarizes the average mean scores for these stress factors.

Table 8 Summary of average mean score stress analysis

Dimension	Average score	Highest rated item	Lowest rated item
Personal	3.98	Nervous about progress and grades (M=4.21, 4.12)	Anxiety about feedback (M=3.70
Academic	4.01	Time constraints and meeting standards (M=4.30, 4.10)	Strain from pushing design boundaries (M=3.77)
Environmental	3.75	Competition among students (M=3.89)	Finding materials and sources (M=3.59)

In terms of personal factors, the greatest stress stems from perceived slower progress compared to peers, aligning with the study Gümüşburun Ayalp & Çivici, (2020). Regarding academic factors, the highest stress is due to limited time for ideation and project development, reflecting findings from Yikealo et al. (2018). For environmental factors, the highest stress comes from internal and external evaluations, as demonstrated by Habibullah et al. (2022). Overall, academic factors, particularly time constraints and project demands, cause the highest levels of stress. Personal and environmental factors also significantly contribute to stress, highlighting areas for potential student support and intervention (Kamarazaly et al., 2021). The findings underscore the importance of recognizing and addressing the stressors faced by architecture students. By identifying specific areas of pressure, educators and program administrators can develop targeted interventions to help students manage their workload, meet academic requirements, and achieve success in their studies.

3. Interest level of fast-track architecture student by the years of study, family socio-economic status and financial resources during study

The analysis reveals that students' interest levels in architecture vary significantly depending on their year of study. First-year students typically exhibit high interest due to the novelty and excitement of starting their academic journey (Ekaputri et al., 2021). Over time, as academic rigor increases and students face greater challenges, their interest levels may decline, aligning with the findings of Vickey I. Thomas (2013) and the theoretical framework of the Four-Phase Model of Interest Development (Roure & Lentillon, 2022). According to this model, students' interest may start high and then decrease as they progress through their studies. However, situational interest might temporarily engage students (Cheung, 2018) and the onset of a study program often introduces new challenges that require self-regulation and motivation (Wild, 2023)

The study also found no significant differences in interest levels based on family socio-economic status, contrasting with earlier research by Darlington (2017) that reported such differences. The lack of significant differences suggests that students' socio-economic backgrounds do not notably impact their interest in architecture. While previous studies have suggested that middle socio-economic status might be linked to higher interest levels (Frontini et al., 2021). Results indicate that individual interest in architecture is not significantly affected by socio-economic status (Yukhymenko-Lescroart, 2021).

Additionally, the research found that students' financial stability, through study loans and scholarships, does not significantly impact their interest levels. This finding supports Dopatka et al. (2020) who linked positive perceptions of financial stability to greater academic interest and performance. Students with financial support might focus better on their studies, aligning with Paramitha et al. (2022) which showed that disciplined students manage their time well, stay focused on their educational goals, and exhibit strong determination to succeed.

4. Stress level of fast-track architecture student by the years of study, family socio-economic status and financial resources during study

The analysis reveals significant differences in stress levels across different years of the academic program. Specifically, students experience the highest stress levels in their final year, consistent with previous research (Mussarat Jabeen Khan, 2018; Patil et al., 2016). As students advance through their program, they face increasing academic demands and responsibilities, which contribute to higher stress levels (Loosemore et al., 2020). For instance, the final year involves complex coursework, design projects, and thesis preparation, which can elevate stress (Smith et al., 2014; Wild, 2023). Contrary to Natasha Amin et al. (2021) who found no significant variation in stress levels among students at different academic stages, this study confirms that stress increases as students progress through their studies. First-year students also report high stress levels due to the challenges of adjusting to a new academic environment (Oketch-Oboth & Okunya, 2018). As they approach the end of their studies, additional stressors such as future uncertainties further impact their stress levels (Gümüşburun Ayalp & Çivici, 2020).

The study found no significant differences in stress levels among students from different family socio-economic backgrounds, contrasting with earlier research by Gijón Puerta et al. (2022). Despite variations in access to resources and financial pressures, students from various socio-economic backgrounds report similar stress levels in their academic experiences. However, students from lower socio-economic backgrounds reported higher stress levels compared to their peers from higher socio-economic backgrounds (Hassan et al., 2017).

The analysis indicates significant differences in stress levels related to students' financial resources. Students who rely on study loans or scholarships experience higher levels of stress compared to those receiving financial support from their parents (Kamarazaly et al., 2021; Yikealo et al., 2018). Financial instability and the pressures associated with managing loans or scholarships can exacerbate academic stress (Potter et al., 2020). Conversely, parental financial support provides a sense of stability and can reduce stress related to financial independence (Kong, 2021). Students with parental support may experience less financial stress and better academic performance (Oketch-Oboth & Okunya, 2018).

The findings underscore that students' stress levels vary by year of study, with final-year students experiencing the highest levels of stress. Additionally, while socio-economic status does not significantly affect stress levels, financial resources play a crucial role, with those depending on loans or scholarships facing greater stress compared to those supported by their parents. Addressing these stressors is essential for improving student well-being and academic performance.

5. The relationship between the interest and stress level among fast-track architecture students in UiTM

The research results for research question number five reveal a statistically significant but very weak negative correlation between interest levels and stress levels among fast-track architecture students ($\rho = -0.117$). This indicates that as students' interest in their studies increases, their stress levels tend to decrease slightly. While the correlation is minimal, it suggests that fostering higher levels of academic interest might contribute to a slight reduction in stress. This finding is consistent with Lee, (2017) who discovered that interest, as a component of grit, negatively correlates with stress. Lee's study suggests that effective stress management can prevent a negative feedback loop where stress reduces interest, thus supporting the idea that increased interest might help mitigate stress (Lee, 2017). The results also confirm the mediating role of interest control in managing academic stress, as highlighted by Oketch-Oboth & Okunya (2018) and support the notion that resilient attitudes and motivation help students transform challenges into opportunities (Spiridon & Karagiannopoulou, 2015). The findings align with Harackiewicz & Hulleman (2010) who noted that situational interest can boost attention and engagement, potentially leading to sustained interest over time. If students manage their stress proactively, this interest can support their academic and professional growth (Mcclean et al., 2020). Mussarat Jabeen Khan (2018) further supports that effective stress management is crucial for better academic performance, while unmanaged stress can lead to severe psychological and physical issues (Adom et al., 2020). For practical applications, educators should aim to create engaging curricula and teaching strategies that enhance student interest through interactive learning experiences, real-world

problem-solving tasks, and opportunities for pursuing personal interests (Rotgans & Schmidt, 2018). Additionally, fostering a supportive and less competitive learning environment can help reduce stress (Porru et al., 2021). In summary, while the correlation between interest levels and stress levels is weak, the statistically significant relationship indicates that increasing student interest can potentially help reduce stress. This finding underscores the importance of creating engaging learning environments and adopting holistic approaches to support student well-being (Jones, 2017).

6. The Implication of the study

For those involved in architecture education, the study has several significant implications, especially concerning fast-track programs. To keep students' attention throughout the study period, especially in the last years when academic pressure is at its highest, it is necessary to modify the curriculum load and teaching methods, according to the implications for educational institutions and educators. Proactive steps that should be taken include rearranging the length of studio assignments and offering student counselling and emotional assistance. Second, as the results indicate a weak negative correlation between interest and stress levels, students themselves should be introduced to stress management techniques and self-motivation. This shows that students may be able to lessen their stress levels with greater engagement. Third, from the standpoint of higher education policy, these findings imply that students in fast-track programs should receive different treatment, such as modifications to their course loads and more focused financial aid for those from low-income families, since such students are known to endure higher levels of stress. Ultimately, the study creates room for more research, including qualitative investigations to learn more about the experiences of fast-track students managing stress and interest in architectural studies, as well as longitudinal studies to evaluate changes in interest and stress by semester.

CONCLUSION

This study explores the relationship between interest and stress in architecture, revealing that high interest among fast-track students reflects strong commitment and enthusiasm for their studies. However, significant stress levels are associated with project deadlines, peer comparisons, and studio demands. Balancing interest with effective stress management is crucial for sustainable academic and professional growth. Educators and administrators should focus on creating supportive environments that foster passion for architecture while offering resources to manage stress, such as time management strategies, mental health support, and a collaborative studio culture. The study finds that first-year students have higher interest compared to fourth-year students, who face greater stress. Family socio-economic status does not significantly affect interest or stress levels, but students relying on program assistance experience higher stress than those with parental support. Institutions should focus on creating engaging curricula and supportive environments to nurture student interest and manage stress effectively.

However, the study has several limitations, including its exclusivity at UITM Sri Iskandar and UiTM Puncak Alam, a small sample size, potential biases from self-reported data, and a limited timeframe. Future research could benefit from larger and more diverse samples, extended timeframes, and a focus on both fast-track and traditional architecture programs. Recommendations for future research include longitudinal studies to observe how interest and stress levels evolve over time, expanding the research scope to include various public and private architecture schools, comparative studies between fast-track and traditional programs, methodological improvements, and incorporating qualitative methods alongside quantitative approaches.

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Data will be made available on request.

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There is no conflict of interest regarding the publication of the paper in any journals.

DECLARATION OF GENERATIVE AI

In the declaration of generative AI and AI-assisted technologies in the writing process during the preparation of this manuscript, the author(s) utilized ChatGPT to assist with grammar refinement. Following the use of this AI-assisted tool, the author(s) thoroughly reviewed and edited the content to ensure accuracy and clarity and assume full responsibility for the integrity and quality of the final publication.

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