

# Perfectionism and Academic Adjustment among Undergraduates: The Coping Strategy as a Mediator

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The high dropout rate among undergraduates has drawn the concerns of policymakers and educators. Studies suggested that the dropout is relevant to poor academic adjustment, and to poor academic adjustment is associated with perfectionism and coping strategies. This study adopts the personality-coping-outcome theory as a framework to examine whether coping strategies mediate the effects of perfectionism on academic adjustment. Two hundred eleven undergraduate students participated in the online survey through the purposive sampling method. They were asked to fill in the Short-Almost perfect scale, simplified coping style questionnaire and academic adjustment scale. The results showed that both perfectionism and coping strategies are associated with academic adjustment, and perfectionism is associated with coping strategies. Besides, coping strategies are statistical mediators for the effects of perfectionism on academic adjustment. The findings support the application of personality-coping-outcome theory in the areas of academic adjustment. Workshops can be provided to students to train their use of appropriate coping strategies while facing academic adjustment issues.

**Keywords:** problem-focused coping, emotional-focused coping, adaptive perfectionism; maladaptive perfectionism, Malaysia.

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# Перфекционизм и академическая адаптация среди студентов: копинг-стратегии как посредник

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Высокий уровень отчисления студентов вызывает озабоченность у законодателей и преподавателей. Исследования показали, что отчисление связано с низкой академической адаптацией, которая, в свою очередь, связана с перфекционизмом и копинг-стратегиями. В этом исследовании используется теория личностно-ориентированного копинга в качестве основы для изучения того, могут ли копинг-стратегии служить посредником между перфекционизмом и его влиянием на академическую адаптацию. Двести одиннадцать студентов бакалавриата приняли участие в онлайн-опросе методом целенаправленной выборки. Им было предложено заполнить «Почти совершенную шкалу», упрощенный опросник стиля копинга и шкалу академической адаптации. Результаты показали, что и перфекционизм, и копинг-стратегии связаны с академической адаптацией, а перфекционизм связан с копинг-стратегиями. Кроме того, копинг-стратегии выступили значимыми посредниками влияния перфекционизма на академическую адаптацию. Полученные данные подтверждают применение теории личностно-ориентированного копинга в области академической адаптации. Для студентов, которые сталкиваются с проблемами академической адаптации, могут быть организованы семинары, чтобы научить их использовать соответствующие копинг-стратегии.

**Ключевые слова:** проблемно-ориентированный копинг, эмоционально-ориентированный копинг, адаптивный перфекционизм, неадаптивный перфекционизм, Малайзия.

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## Introduction

### Academic Adjustment

In Malaysia, more than 44 per cent of secondary students are able to enrol in tertiary education in 2016 [44]. However, it is estimated that about 21 per cent of them are not able to graduate and thus drop out from the universities [24]. According to Baker [4], poor academic adjustment is a factor that is relevant to the university dropout. Academic adjustment is defined as the degree of students adapting themselves to the education requirements, including their drives to goals, efforts, and contentment towards the academic environment [2]. The poor academic adjustment may occur because university life is highly distinct from their previous school experiences. Many undergraduates have to face the differences in academic demands, learning processes, and autonomy on time and activity [12]. Therefore, these students who have academic adjustment problems may experience poor academic performance [3; 5].

Some studies have supported the associations between academic adjustment and academic performance. For example, Aspelmeier et al. [3] surveyed 322 US undergraduate students and they found that academic adjustment is positively associated with students' academic grade. Besides the associations between academic adjustment and academic performance, some studies revealed the associations between academic adjustment and psychological well-being. For example, Clinciu [7] surveyed 157 undergraduate students in Romania. They found that participants who are better in academic adjustments have lower perceived academic stress.

Due to the associations between academic adjustment and academic performance and between academic adjustment and psychological well-being, Van Rooij et al. [37] suggested that it is essential to explore academic adjustment among students who underwent the transition from secondary school to the freshman year in the university.

### Perfectionism

Some studies reported that personalities could be relevant to academic adjustment. For example, Sripan and Sujivorakul [34] surveyed 277 vocational learners from three vocational

schools in Bangkok of Thailand. They found that self-determination is a significant predictor of intention to persist in the study.

Perfectionism is another personality trait that associates with academic adjustment. Perfectionism refers to a personality trait associated with attempting to have no error with the belief that others have high expectancy and a critical assessment of oneself [35]. Perfectionism is multidimensional, and it is characterized by high self-performance expectations and critical self-evaluations [13].

People with adaptive perfectionism are organized to meet personal standards but are less concerned about their capability to meet those standards [27]. Therefore, they are less anxious about making mistakes and tend to take action to solve their problems [10]. In contrast, maladaptive perfectionists are less organized but are more concerned about mistakes [27]. More specifically, they fear failure, so they tend to do nothing [22]. Some researchers reported that maladaptive perfectionism could result in academic procrastination [8]. Therefore, adaptive or maladaptive perfectionism may lead to a different academic adjustment level due to their ways of handling their academics.

### Perfectionism and Academic Adjustment

Some studies have found an association between perfectionism and academic adjustment. For example, Lapoint and Soysa [20] recruited 175 US undergraduate students. They found that adaptive perfectionism was positively associated with academic adjustment, whereas maladaptive perfectionism was negatively associated with academic adjustment.

### Coping and Academic Adjustment

Besides personality, coping strategies can be another factor relevant to academic adjustment. Coping is a dynamic, behavioural, and cognitive effort that people implement to encounter internal or external stress [26]. Some researchers categorize coping strategies into problem-focused coping and emotion-focused coping. Problem-focused coping refers to directly dealing with the problem, while emotion-focused coping is characterized more by managing negative emotions [36].

Some studies have been conducted to examine the relationships between coping and academic adjustment. For example, Bukhari and Ejaz [6] surveyed 300 Pakistani students, and they found that problem-focused coping was positively associated with academic adjustment. Irlloh and Ukaegbu [18] surveyed 382 undergraduate students in Nigeria. Their results also showed that problem-focused coping strategies significantly contributed to academic adjustment. However, no significant association was found between emotion-focused coping strategies and academic adjustment.

### Perfectionism and Coping Styles

Since perfectionism and coping styles are associated with academic adjustment, it indicates a possible relationship between perfectionism and coping styles. For example, Zhang and Zhao [41] surveyed 350 China undergraduate students. The results concluded that adaptive perfectionism is positively correlated with mature coping styles, such as problem-solving, but is negatively correlated with immature coping styles, such as avoidance. In contrast, maladaptive perfectionism is negatively correlated with mature coping but positively correlated with immature coping.

### Mediating Effect of Coping Styles

As shown in the above review, studies have shown the associations between personality and coping styles, personality and academic adjustment, and coping styles and academic adjustment. These associations suggested that there is a mechanism that links these three variables together. The personality-coping-outcome theory provides a framework to examine the mechanism. This theory proposes that when one encounters stressful situations, personality influences one's coping style differently, which further affects one's adjustment [14]. In other words, coping strategies can be a mediator for the effects of personality on the outcomes.

Some studies have reported the mediating effect of coping styles for the effects of personality on some psychological outcomes. Siah et al. [32] surveyed 150 Malaysian undergraduate students. Using the personality-coping-outcome theory as a framework, they found that coping strategy is a mediator for the effects of locus of control on procrastination. Locus of control is the tendency

to believe that they have control over their life episode throughout their whole life [29]. Zhang and Cai [40] surveyed 412 introductory psychology undergraduates from China. They found that coping strategies mediated the effect of maladaptive perfectionism on depression.

### Aims of the Study

In our knowledge, no study has examined whether coping styles mediated the effects of perfectionism on academic adjustment or not. Accordingly, using the personality-coping-outcome theory proposed by Gallagher as a framework [14], this study examines this issue. The hypotheses and conceptual framework of this study are as follows:

#### Hypotheses

H1. Perfectionism is associated with academic adjustment

H1a: Adaptive perfectionism is positively associated with academic adjustment

H1b: Maladaptive Perfectionism is negatively associated with academic adjustment

H2. Coping styles are associated with academic adjustment

H2a: Problem-focused coping style is positively associated with academic adjustment

H2b: Emotion-focused coping style is negatively associated with academic adjustment

H3. Perfectionism is associated with coping style

H3a: Adaptive perfectionism is positively associated with the problem-focused coping style

H3b: Adaptive perfectionism is negatively associated with the emotion-focused coping style

H3c: Maladaptive Perfectionism is positively associated with the emotion-focused coping style

H3d: Maladaptive perfectionism is negatively associated with the problem-focused coping style

H4. Coping style is a mediator for the effect of perfectionism on academic adjustment

H4a: Problem-focused coping style is a statistical competitive mediator for the effect of adaptive perfectionism on academic adjustment

H4b: Emotion-focused coping style is a statistical complementary mediator for the effect of adaptive perfectionism on academic adjustment

H4c: Problem-focused coping style is a statistical complementary mediator for the effect of maladaptive perfectionism on academic adjustment

H4d: Emotion-focused coping style is a statistical competitive mediator for the effect of maladaptive perfectionism on academic adjustment

## Method

### Research Design

A cross-sectional survey research design was administered in this quantitative study. A cross-sectional research design is a design that allows data collection of all variables to be carried out among the same participants at one point in time [30] and to discover the determinants of the interesting outcome and the possible relationships among the variables [42].

### Participants

A total of 211 participants replied to the online survey. However, the total valid sample was 170 as 41 responses do not meet the study's inclusion criteria, that they should be Malaysian and an undergraduate. The sample size is larger than the minimum number of 130 samples based on the calculation of G\*power version 3.0 (four predictors, effect size is set at .15, and power is at .8). 70.6% respondents were females ( $n = 120$ ), and 29.4% were males ( $n = 50$ ). Their ages range from 18 to 25 years old ( $M = 21.37$ ,  $SD = 1.3$ ).

### Instrument

The online survey form consists of four sections: demographic information and three scales to measure perfectionism, coping strategies and

academic adjustment.

**Demographic Information.** Participants were asked to fill in their ages, educational background, gender and nationality in this section.

**Short Almost Perfect Scale.** The short version of Almost Perfect Scale-Revised [28] was used in this study. It contains eight items that include two subscales with four items each. The two subscales are labelled as standard and discrepancy. A sample item of the standard subscale is "I have high expectations for myself", and a sample item of discrepancy subscale is "Doing my best never seems to be enough". Participants were asked to tick a box in a 7-Likert point scale for each item (1: Strongly disagree; 7: Strongly Disagree). A high score in standards contributes to adaptive perfectionism. In contrast, a high mean score in discrepancy indicates maladaptive perfectionism. The internal consistency of the standard subscale is reported as .75, and the internal consistency of the discrepancy scale is reported as .79 [23].

### Simplified Coping Style Questionnaire.

This instrument was created by Xie [38], and it contains 20 items with two subscales. The first subscale is a positive style that contains 12 items, and a sample item is "try to look on the bright side of things". The second subscale is a negative style that contains eight items, and a sample item is "try to forget the whole thing". Participants need to tick a box in a 4-Likert point scale for each item (1: Never used; 4: Often used). A higher mean score in either aspect indi-

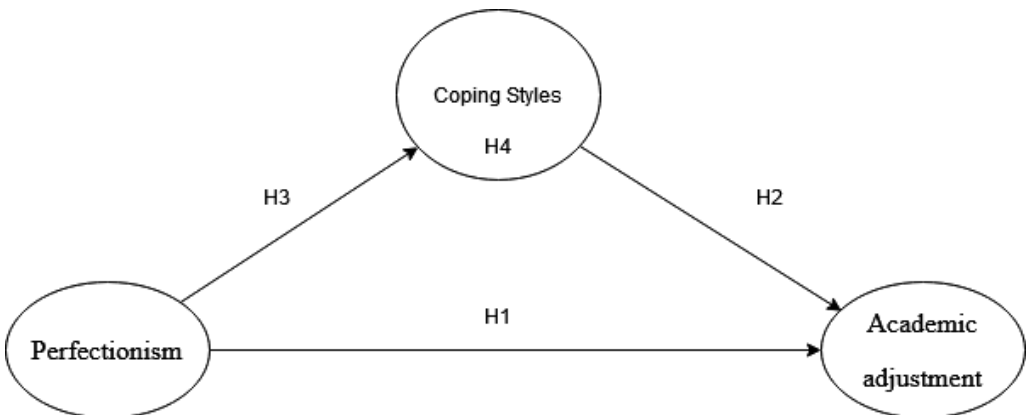


Fig. 1. Conceptual Framework

cates more frequent use of the particular coping style. The internal consistency of the scale was reported as .81 [39].

**Academic Adjustment Scale.** This scale was developed by Anderson et al. [1] and consisted of nine items. There are three subscales in this instrument including academic lifestyle (e.g., I am enjoying the lifestyle of being a university student), academic achievement (e.g., I am satisfied with my ability to learn at university), and academic motivation (e.g., I expect to successfully complete my degree in the usual allocated time frame). There are three items in each subscale. Participants need to tick a box for each item in a 5-Likert point scale (1: Rarely applies to me; 5: Always applies to me). Items 2 and 3 are reverse scored items and thus need to be recoded while computing. A higher mean score suggests a better adjustment in academics. The Cronbach's alpha for the whole scale is .69 [25].

**Procedure**

After getting approval from the scientific and ethical committee of the university (U/SREC/212/2020), purposive sampling was used to recruit participants who are Malaysian undergraduates. For data collection, an online survey was created using Qualtrics and distributed using a QR code or a link via researchers' social media platforms to the target population. Next, participants were required to read the first page consisting of the study's introduction, the procedures to complete the questionnaire, confidentiality, contact information of the group leader, and the option for agreement to participate in the survey. For those who tick the option of agreeing to participate in the survey, the option would link to the next section that includes demographic information, the Short Almost Perfect Scale, Simplified Coping Style Questionnaire, and Academic Adjustment Scale. The online questionnaire requires approximately 10 to 15 minutes to complete.

**Data Analysis**

The data was then saved in an excel file. Both the SPSS and SmartPLS programs were used to analyze the data. The SPSS program analyzed descriptive analyses, and the SmartPLS program

analyzed the partial least structural equation model. The measurement model assessment was conducted at the first stage to examine the scales reliability and validity. The structural model was conducted at the second stage to examine the hypotheses.

**Results**

**Data Cleaning**

Skewness and kurtosis were used to examine the normality of perfectionism, coping strategies and academic adjustment. The skewness and kurtosis values of all measurements were in the range between -2.0 and +2.0 [19], so the normality of the data for all measurements is acceptable (see Table 1).

Table 1  
**Skewness and kurtosis of the variables**

Measure	Skewness	Kurtosis
Adaptive Perfectionism	-.36	-.16
Maladaptive Perfectionism	-.36	-.39
Positive Coping	.16	.53
Negative Coping	.19	.02
Academic Adjustment	-.59	.89

**Measurement Model**

**Construct Reliability.** One item in emotion-focused coping was removed as the composite reliability is below the recommended values of .7 [16]. The final composite reliabilities of all the measurements ranged from .73 to .89 (Table 2). Correspondingly, the findings suggested that the latent constructs of all measurements are acceptable.

Table 2  
**Construct reliability and validity of all measurements**

Factors	Total item	Composite Reliability
Maladaptive perfectionism	4	0.86
Adaptive perfectionism	4	0.89
Academic adjustment	9	0.80
Emotion-focused	8 (removed one item)	0.73
Problem-focused	12	0.79

**Discriminant Validity.** HTMT ratio was used to examine the discriminant validity. Henseler et al. [17] suggested that the HTMT ratio above .85 can be regarded as low discriminant validity. As shown in Table 3, the discriminant validities of all measurements are below .85.

**Coefficient of Determination, Effect Size and Collinearity Statistics of Measurements.** The results of the analyses were shown in Table 4. The variance inflation factor of all scales as also below 5, indicating no collinearity issue was found [15]. Besides, the results also reveal a large effect size of the predictors on academic adjustment and a medium effect size of perfectionism on emotion and problem-focused coping [9]. The main effect size among the predictors is from the maladaptive perfectionism on emotion-focused coping and from the adaptive perfectionism on problem-focused coping.

**Structural Model**

As shown in Table 5, after controlling gender and age, adaptive perfectionism is positively associated with academic adjustment,  $p < .001$ , whereas maladaptive perfectionism is negatively associated with academic adjustment,  $p < .001$ . Besides, problem-focused coping strategy is positively associated with academic adjustment,  $p = .01$ , whereas emotion-focused coping strategy is negatively associated with academic adjustment,  $p < .001$ . Moreover, adaptive perfectionism is positively associated with problem-focused coping strategy but negatively associated with emotion-focused coping strategy,  $p < .001$ . However, maladaptive perfectionism is positively associated with emotion-focused coping strategy,  $p < .001$ , but negatively associated with problem-focused coping strategy,  $p = .01$ .

Table 3

**Discriminant validities of all measurements (HTMT)**

	1	2	3	4
Maladaptive Perfectionism				
Adaptive Perfectionism	.47			
Academic adjustment	.40	.41		
Emotion focused	.40	.20	.54	
Problem focused	.24	.43	.50	.43

Table 4

**Coefficient of determination ( $r^2$ ), effect size ( $f^2$ ) and collinearity statistics (VIF) of measurements**

Exogenous	Endogenous	R <sup>2</sup>	f <sup>2</sup>	VIF
Academic adjustment		.41		
	Maladaptive Perfectionism		.14	1.34
	Adaptive Perfectionism		.13	1.44
	Emotion-focused		.08	1.22
	Problem-focused		.05	1.26
Emotion-focused		.16		
	Maladaptive Perfectionism		.17	1.10
	Adaptive Perfectionism		.08	1.10
Problem-focused		.18		
	Maladaptive Perfectionism		.04	1.10
	Adaptive Perfectionism		.21	1.10



Table 5

**Results of the Structural Equation Modelling (one-tailed test)**

	Hypothesis	Beta	Std Error	T value	P Values
<u>Academic adjustment</u>					
Adaptive perfectionism -> Academic adjustment	H1a	.33	.09	3.61	< 0.001
Maladaptive perfectionism -> Academic adjustment	H1b	-.33	.08	4.16	< 0.001
Problem focused -> Academic adjustment	H2a	.19	.08	2.25	.01
Emotion focused -> Academic adjustment	H2b	-.24	.07	3.34	< 0.001
<u>Problem-focused</u>					
Adaptive perfectionism -> Problem focused	H3a	.43	.07	6.52	< 0.001
Maladaptive perfectionism -> Problem focused	H3b	-.18	.08	2.27	.01
<u>Emotion-focused</u>					
Adaptive perfectionism -> Emotion focused	H3c	-.27	.07	3.66	< 0.001
Maladaptive perfectionism -> Emotion focused	H3d	.39	.07	5.57	< 0.001
<u>Mediating effect</u>					
Adaptive perfectionism -> Problem focused -> Academic adjustment	H4a	.08	.04	2.16	.02
Adaptive perfectionism -> Emotion focused -> Academic adjustment	H4b	.06	.03	2.25	.01
Maladaptive perfectionism -> Problem focused -> Academic adjustment	H4c	-.03	.02	1.45	.07
Maladaptive perfectionism -> Emotion focused -> Academic adjustment	H4d	-.09	.03	2.80	< 0.001
<u>Control variables</u>					
Gender		.10	.07	1.48	.07
Age		-.04	.08	.50	.31

**Mediating Effect.** As shown in Table 5, the specific indirect effects of adaptive perfectionism on academic adjustment through the problem and emotion-focused coping strategies are significant,  $p_s=.02$  and  $.01$ . Besides, since the direct effect of adaptive perfectionism on academic adjustment is also significant,  $p<.001$  indicates a complementary mediating effect [43]. However, only the specific indirect effects of maladaptive perfectionism on academic adjustment through emotion-focused coping strategies are significant,  $p<.001$ . Since the direct effect of maladaptive perfectionism on academic adjustment is also significant,  $p<.001$  also indicates a complementary mediating effect [43]. There is no significant specific indirect effect of maladaptive perfectionism on academic adjustment through problem-focused coping strategies,  $p=.07$ .

**Discussion**

This study adopts the personality-coping-outcome theory as a framework to examine the associations among these three variables and whether coping strategies mediate the effects of perfectionism on academic adjustment. For the first research question, the results of this study also found significant associations between perfectionism and academic adjustment, in which adaptive perfectionism is positively associated with academic adjustment and maladaptive perfectionism is negatively associated with academic adjustment. These findings are similar to the findings of Lapoint and Soysa [20]. For the second research question, our findings also showed significant positive associations between problem-focused coping and academic adjustment. However, different from Cousins et al. [11] and Iruloh and Ukaegbu [18], our findings



also showed a significant negative association between emotion-focused coping and academic adjustment. Overall, our results are consistent with our hypothesis that academic adjustment is associated with perfectionism and coping strategies. Importantly, both the perfectionism and coping strategies account for the large effect size of academic adjustment,  $r^2=.41$  [9].

For the third research question, our results also found significant associations between perfectionism and coping strategies, that adaptive perfectionism is positively associated with problem-focused coping but negatively associated with emotion-focused coping. In contrast, maladaptive perfectionism is positively associated with emotion-focused coping but negatively associated with problem-focused coping. Medium to large effect size was found in the association between maladaptive perfectionism and emotion-focused coping and between adaptive perfectionism and problem-focused coping. These findings are consistent with the findings of Zhang and Zhao [41], who surveyed Chinese undergraduate students, and Larijani and Besharat [21], who surveyed Iran undergraduate students. The consistency indicates the robustness of the associations.

The fourth research question is about the mediating effects of coping strategies. Our results showed that both the problem-focused and emotion-focused coping strategies are the mediators for the effects of adaptive perfectionism on academic adjustment. These results indicate that besides the direct effect of adaptive perfectionism on academic adjustment, the indirect effect of coping strategies also influences their relationships.

However, the results only partially support the mediating effect of coping strategies on maladaptive perfectionism and academic achievement. Maladaptive perfectionism is more likely to have poorer academic adjustment, partly because they are more likely to use emotion-focused coping strategies. However, the relationship between maladaptive perfectionism and academic adjustment is not relevant to problem-focused coping strategies. In other words, the use of problem-focused coping strategies did not help to improve academic adjustment among maladaptive perfectionism.

## Conclusion

Overall, the findings of this study support the predictions based on the personality-coping-outcome theory that coping strategies mediate the effects of perfectionism on academic adjustment. Adaptive perfectionism is more likely to use problem-focused. However, maladaptive perfectionism is more likely to use emotion-focused coping strategies, and such coping strategies have influenced their adjustment in academic life.

## Implications

In terms of practical implication, the findings suggested the importance of coping strategies in academic adjustment. More use of problem-focused and less emotion-focused coping strategies can assist both adaptive and maladaptive perfectionism students in adjusting better. Accordingly, awareness programmes can be provided to students to increase their knowledge of coping strategies and understand the advantages and disadvantages of different coping strategies. Besides, workshops can be provided to students to train them to use problem-focused coping strategies while facing academic adjustment issues.

In terms of theoretical implication, the findings indicate the importance of coping strategies that associate personality and its outcomes. Most personality theories have mentioned personality influences on outcomes [33] but seldom explore the mechanism that links personality and outcomes. The personality-coping-outcome theory suggests that coping strategies can be a mediator that links between personality and outcomes. The findings of this study support the application of the theory in the areas of academic adjustment. Even though personality is mostly formed through nature and thus hard to change, training of coping strategies can still be possible to change the direct effect of personality on academic adjustment.

## Limitation

The interpretation of the study should be cautious. As the sample is recruited from a university in Malaysia, and the purposive sampling method was used in the study, the results may not generalize to undergraduates in other institutions. Future studies may need to recruit more samples

from diverse settings, demographics, and academic backgrounds to examine the robustness of the findings. Besides, as the data is collected using a cross-sectional design that only a statisti-

cal mediator can be proposed, future studies may need to use an experimental design to examine the cause-effect explanation and the mediating effect [31].

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