



Perfectionism and academic procrastination in students working on their thesis at University X in Medan City: The role of fear of failure as a mediator

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ABSTRACT

Students face significant academic demands when completing their final projects, which often leads to feelings of reluctance and postponement to do the final project. This study aims to examine the role of fear of failure as a mediator in the relationship between perfectionism on the procrastination among students working on their theses. Employing a quantitative approach, this research utilizes a cross-sectional study method. The sampling technique applied in this study is cluster random sampling, involving a total of 358 participants from one of the universities in Medan City. The research instruments used include the APS-S scale, the multidimensional perfectionism scale, and the fear of failure scale. The results of mediation analysis using Structural Equation Modelling (SEM) with the PLS-SEM 3.0 program showed that fear of failure significantly mediated the influence of perfectionism on academic procrastination in students with $t\text{-Statistic}=8.866 > 1.96$ and $p\text{-Values}=0.000 < 0.05$. These findings imply that fear of failure amplifies the tendency of perfectionist students to avoid situations that may lead to mistakes or failures, consequently resulting in delays in completing their theses. It is better for them to develop a growth mindset by shifting the focus from outcomes to the learning process and setting realistic goals will help students reduce academic procrastination.

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Introduction

The college period is a significant transition for students, as they adapt to a time management system that differs markedly from that of high school. Additionally, students must learn to prepare for various assessments, including midterm and final exams, as well as quizzes administered by lecturers in each course (Basri, 2017). A thesis is a final project that students must complete at the university level to earn a bachelor's degree. The process of developing a thesis can be lengthy and complex, requiring substantial financial resources, effort, time, and focus. Ideally, students should complete their thesis within one semester, or approximately six months; however, many students find that they need more than six months to finalize their thesis (Hapsari, 2016).

The phenomenon of procrastination is commonly referred to as procrastination. When this behavior occurs in an academic context, it is commonly called academic procrastination. According to Musslifah (2018), academic procrastination serves as a mechanism for managing anxiety associated with initiating or completing tasks, as well as making decisions. Jamila (2020) further elaborates that academic procrastination is characterized by individuals who tend to delay the completion of assignments assigned by lecturers. This behavior can lead to students becoming lazy and frequently experiencing failure in academic. The prevalence of procrastination among students is notably high, with estimates indicating that between 80% and 95% of students exhibit such behaviors, alongside a desire to reduce them (Codina et al., 2020; Muñoz-Olano & Hurtado-Parrado, 2017).

The prevalence of procrastination among students in Indonesia is evidenced by research conducted by Suhadianto and Ananta (2022), which indicates that 83% of students exhibit moderate to high academic procrastination. Consequently, only 17% of students fall within the low to very low category of academic procrastination. This phenomenon is particularly pronounced among students engaged in thesis work, as they often establish excessively high standards for their output. When these standards are not met, it can lead to delays and procrastination in their academic endeavors (Pratama et al., 2023).

According to McCloskey and Scielzo (2015), the dimensions of academic procrastination encompass six aspects. These include psychological beliefs regarding one's abilities, where individuals who tend to procrastinate possess overconfidence. Consequently, they choose to complete tasks closer to their deadlines, believing that their motivation will be boosted under time pressure despite the irrationality of this belief. Additionally, attention disorders contribute to procrastination, as individuals may become easily distracted by more enjoyable activities, perceiving academic responsibilities as tedious in comparison. Social factors also play a role, particularly low self-regulation, which can lead to increased stress when faced with tasks. Furthermore, a vast difference exists between one's goals and actual behaviors, indicating poor time management skills. Personal initiative is another factor characterized by a lack of motivation to commence task completion. Lastly, laziness manifests as a tendency to evade tasks, even when individuals possess the capability to complete them.

Lesmana (2022) identified four factors that may contribute to an individual's tendency to procrastinate: time management issues, prioritization difficulties, task characteristics, and personal traits. Additionally, Lee Folk Market (2022) highlighted other influences on academic procrastination, specifically perfectionism and fear of failure. Their research findings indicate that perfectionism exerts a direct negative impact on academic procrastination. Furthermore, perfectionism also significantly indirectly affects academic procrastination through the mediating role of fear of failure.

Perfectionism is characterized as a personality trait in which individuals set exceptionally high standards for themselves, often accompanied by the belief that others expect them to achieve perfection. Individuals exhibiting this trait typically demonstrate a strong motivation to accomplish their goals (Apriani, 2020). According to Hewitt and Flett (1991) perfectionism can be categorized into three dimensions: socially prescribed perfectionism, self-oriented perfectionism, and other-oriented perfectionism. A perfectionist may exhibit a consistent personality trait marked by establishing high standards and a critical disposition towards themselves and others. Perfectionists often fear failure and may become preoccupied with demonstrating their perfection to themselves and others (Peterson, 2023).

A fear of failure can lead individuals to procrastinate on tasks they are required to complete. This phenomenon is supported by research conducted by Iswara et al. (2021) involving Bidikmisi students at the Universitas Pendidikan Indonesia, which indicated that fear of failure significantly influences academic procrastination behavior. Such fear can instil self-doubt, diminish confidence in one's ability to succeed, and ultimately result in missed opportunities due to the apprehension of failure. Furthermore, this fear can contribute to procrastination, as (Kurtovic et al., 2019) noted. Conroy et al. (2002) created a Fear of Failure

measurement structure with five factors: fear of experiencing shame and embarrassment, fear of devaluing one's self-estimate, fear of having an uncertain future, fear of important others losing interest, and fear of upsetting important others. Septaniar (2020) also revealed a significant positive correlation between fear of failure and academic procrastination, suggesting that as students' fear of failure increases, so does their tendency to procrastinate academically (Iswara et al., 2021). Consequently, it can be concluded that fear of failure has a detrimental effect on academic procrastination.

This study investigates the role of fear of failure as a mediating variable in the relationship between perfectionism and academic procrastination among students preparing their theses at a private university in Medan City. The encouragement for this research stems from the prevalence of procrastination among students, particularly during the thesis preparation phase, and the limited existing literature addressing the mediating role of fear of failure in this context. It is anticipated that the findings of this study will contribute to the body of knowledge in the field of educational psychology, particularly regarding the application of fear of failure as a mediator between perfectionism and academic procrastination.

The hypothesis posited by the researchers in this study asserts that perfectionism influences academic procrastination among students engaged in thesis work (H1). Additionally, it is proposed that fear of failure impacts academic procrastination in students undertaking their thesis (H2). Furthermore, the hypothesis suggests that perfectionism affects fear of failure in students working on their thesis (H3). Lastly, it is hypothesized that perfectionism influences academic procrastination, with fear of failure as a mediating variable among students engaged in thesis work (H4). A visual representation of the research model is provided in Figure 1.

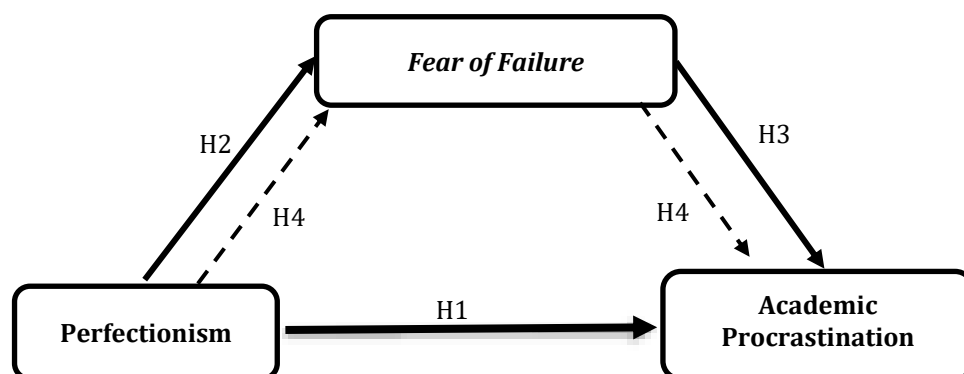


Figure 1. Research Model

Method

The research used a quantitative approach, precisely the cross-sectional study method. The population for this study comprises students who are at least in their fifth semester, enrolled in thesis courses, and actively participating in the Faculty of Psychology, Faculty of Law, Faculty of Science and Technology, Faculty of Agriculture, Faculty of Islamic Religion, Faculty of Engineering, Faculty of Economics and Business, and Faculty of Social and Political Sciences at University X in Medan City. The sampling technique employed is cluster random sampling, which involves selecting samples from groups of individuals or clusters rather than from individuals directly. The selected faculties for this study include the Faculty of Engineering, the Faculty of Economics and Business, and the Faculty of Social and Political Sciences. The total number of participants in this study is 358 students.

Before completing the measuring instrument the researcher provided, participants filled out a willingness sheet in the form of informed consent. The data for this study were collected by distributing the scale via the Google Forms platform. This study utilized three measuring instruments, the Academic Procrastination Scale-Short Form (APS-S), consisting of five items adapted into Indonesian by Rasyid et al. (2023). The researchers adapted the scale without adding or removing any items. The APS-S is based on the dimensions outlined by McCloskey and Scielzo (2015), which include psychological beliefs regarding abilities or perceived inability, attention disorders, social factors, time management skills, personal initiative, and laziness. The APS-S demonstrated a Cronbach's Alpha of 0.86, with the Corrected Item-Total Correlation (CITC) values ranging from 0.64 to 0.72.

The instrument employed to measure perfectionism in this study is the Multidimensional Perfectionism Scale, initially developed by Hewitt and Flett (1991) and subsequently adapted into Indonesian by Mistica (2022). This scale is grounded in three dimensions of perfectionism: self-oriented perfectionism, other-oriented perfectionism, and socially prescribed perfectionism. It comprises 15 items and utilizes a Likert scale format. The Indonesian adaptation of the Multidimensional Perfectionism Scale, as reported by Mistica (2022), demonstrates a Cronbach's alpha coefficient of 0.714, with a validity assessment yielding a Chi-Square value of 79.03, degrees of freedom (df) of 66, a p-value of 0.12053, and a Root Mean Square Error of Approximation (RMSEA) of 0.025.

The Fear of Failure Scale utilized in this study is based on a scale developed by Conroy et al. (2002) and subsequently adapted into Indonesian by Martin and Yunanto (2023). This scale encompasses five factors identified by Conroy et al. (2002): the fear of experiencing shame and embarrassment, the fear of devaluing one's self-esteem, the fear of an uncertain future, the fear of important others losing interest, and the fear of disappointing important individuals. The scale comprises a total of 25 statements. The adapted Fear of Failure Scale (PFAI) demonstrates satisfactory convergent validity, with an AVE value ranging from 0.398 to 0.730, and an overall composite reliability exceeding 0.7. Furthermore, the PFAI exhibits strong reliability, with composite reliability values ranging from 0.733 to 0.931.

The data analysis technique employed in this study is Structural Equation Modeling (SEM) using Smart-PLS. This research utilizes the primary analytical method of Partial Least Squares (PLS) structural equations facilitated by SmartPLS software. This software is advantageous for obtaining comprehensive insights, even with a limited sample size (Bari & Abrar, 2019). The rationale for selecting Smart PLS for SEM analysis includes several benefits: its flexibility in accommodating complex models, the absence of assumptions regarding data normality, its efficiency in parameter estimation with large samples, its tolerance for multicollinearity, and its appropriateness for exploratory research aimed at theory development.

Result

The participants in this study consist of students from the Faculty of Engineering, the Faculty of Economics and Business, and the Faculty of Social and Political Sciences at University X. The total number of participants in this study is 358 students.

The data presented in Table 1 indicates that most student participants in this research are male, specifically from the 2020 Stambuk. The predominant age range among participants is between 22 and 24 years, and individuals from the Batak ethnic group constitute the largest demographic within the sample. These findings suggest that the results of this study may not be generalizable to populations with differing characteristics. It is anticipated that subjects exhibiting different traits will yield results that diverge from those observed in this study.

Table 1. Frequency Distribution and Percentage of Descriptive Data Analysis

Characteristic	Frequency	Percentage (%)
Gender		
Man	290	53.1
Woman	168	46.9
Force		
2016	2	0.6
2017	1	0.3
2018	4	1.1
2019	92	25.7
2020	259	72.3
Age		
19 – 21 Years	36	10.1
22 – 24 Years	237	66.2
25 – 27 years old	85	23.7
Department		
Public Administration	40	11.2
Accountancy	59	16.5
Communication Science	40	11.2
Government Science	21	5.9
Management	78	21.8
Architectural Engineering	10	2.8
Electrical Engineering	10	2.8
Informatics Engineering	21	5.9
Industrial Engineering	18	5.0
Mechanical Engineering	21	5.9
Civil Engineering	40	11.2
Tribe		
Aceh	15	4.2
Batak	165	46.1
Javanese	82	22.9
Malay	46	12.8
Minang	38	10.6
Other tribes (Betawi, Bugis, Sundanese, Chinese)	12	3.4
Betawi	3	0.8
Bugis	4	1.1
Sundanese	4	1.1
Chinese	1	0.3

Table 2 indicates that the reliability coefficients for each measuring instrument exceed 0.90. According to Hair et al. (2021) and Sholihin and Ratmono (2013), a Cronbach's alpha value greater than .70, an Average Variance Extracted (AVE) value exceeding 0.50, and a Composite Reliability (CR) value above 0.70 are considered acceptable thresholds. Therefore, it can be concluded that Cronbach's alpha, AVE, and CR values have met the established standards.

Table 2. Description of Cronbach's Alpha, Composite Reliability and Average Extracted

	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
Fear of Failure	0.980	0.982	0.681
Perfectionism	0.960	0.964	0.639
Academic Procrastination	0.919	0.939	0.755

As presented in Table 3 and Figure 2, a significant direct relationship exists between perfectionism and academic procrastination, evidenced by a path coefficient value of 0.285. This relationship is statistically significant, as indicated by a t-statistic value of 5.192, which exceeds the threshold of 1.96, and a p-value of $0.000 < 0.05$. The relationship of perfectionism has a positive effect on fear of failure, with a coefficient value (original sample column) of 0.582 and $t\text{-statistic} = 12,123 > 1.96$, and $p\text{-values} = 0.000 < 0.05$. Additionally, the fear of failure demonstrates a positive effect on academic procrastination, with a coefficient value of (original sample column) 0.584, $t\text{-statistics values} = 10.486 > 1.96$, and $p\text{-values} = 0.000 < 0.05$

Table 3. Path Coefficient Test and Significance of Direct Influence

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Value
Perfectionism on Academic Procrastination	0.285	0.288	0.055	5.192	0.000
Perfectionism Against Fear Of Failure	0.582	0.583	0.048	12.123	0.000
Fear Of Failure against Academic Procrastination	0.584	0.581	0.056	10.486	0.000

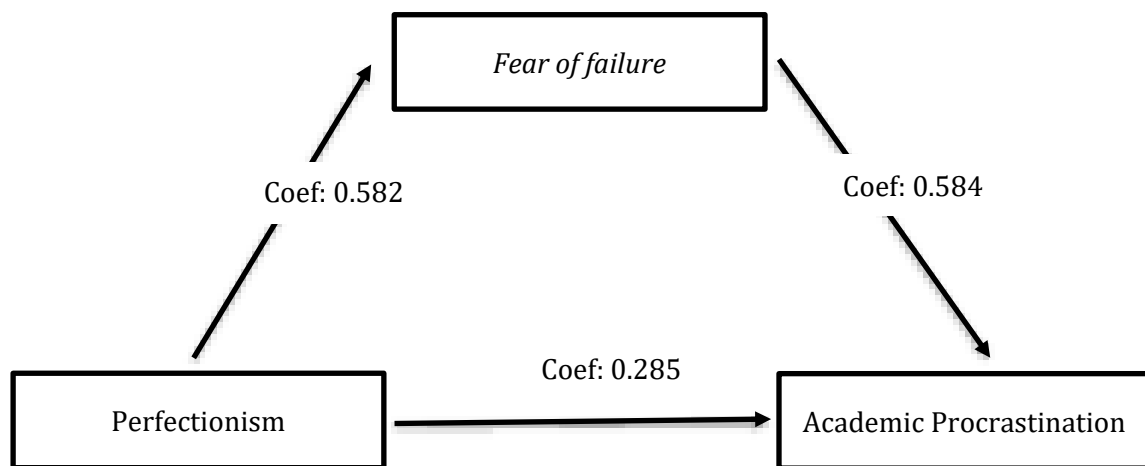


Figure 2. The Influence of Perfectionism, Fear of Failure and Academic Procrastination

The results of the mediation analysis indicate that fear of failure significantly mediates the relationship between perfectionism and academic procrastination, as evidenced by a t-statistic of 8.866, which exceeds the threshold of 1.96, and a p-value of 0.000, which is less than the significance level of 0.05. The analysis reveals that the indirect influence of perfectionism on academic procrastination, accounting for 34%, is greater than the direct influence, which has a value of 0.285 and contributes 28.5%. Consequently, it can be concluded that the indirect influence is more substantial than the direct influence. This finding suggests that fear of failure significantly mediates the relationship between perfectionism and academic procrastination.

Discussion

Based on the findings of this study, all participants responded to the proposed hypothesis. The initial analysis results indicated a positive correlation between perfectionism and the propensity for academic procrastination. This result suggests that perfectionism significantly

influences academic procrastination among students. Students who are in the process of developing their theses encounter various challenges, including confusion regarding the initiation of their research and uncertainty about their ability to complete the thesis, which further delays their progress. Additionally, students often prefer engaging in more enjoyable activities and face difficulties locating necessary references, particularly those in foreign languages, which complicates the thesis completion process. Thus, procrastination among students in finalizing their theses can be attributed, in part, to perfectionism (Dara et al., 2023).

Pratama et al. (2023), Setiawan and Faradina (2018), Sudirman et al. (2023) demonstrate that perfectionism is positively correlated with academic procrastination in task completion; specifically, as the level of perfectionism increases, so does the intensity of procrastination. This finding is corroborated by research conducted by Ghosh and Roy (2017) among students in India, which indicates a positive correlation between academic procrastination and all three dimensions of perfectionism. Basaria et al. (2021) also assert that perfectionism plays a significant and positive role in procrastination among adolescents in DKI Jakarta. Further studies by Abdollahi et al. (2020) and Kurtovic et al. (2019) reveal that maladaptive perfectionism is a significant positive predictor of academic procrastination, while adaptive perfectionism is a significant negative predictor. Consequently, it can be concluded that perfectionism significantly influences academic procrastination; specifically, higher levels of perfectionism are associated with increased academic procrastination, and conversely, lower levels of perfectionism are associated with decreased academic procrastination and vice versa.

The findings from the second analysis regarding the impact of perfectionism on fear of failure indicate that perfectionism positively influences fear of failure. Consequently, it can be concluded that perfectionism has a significant and positive effect on the fear of failure among students. This result suggests that fear of failure may influence the degree of perfectionism in students, as those with perfectionist tendencies tend to be more sensitive to judgments from others, including lecturers, peers, and family members. Students often fear that failure will result in negative judgments from others, which can adversely affect their self-esteem and reinforce the belief that each failure will expose their weaknesses in the eyes of others. The detrimental aspects of perfectionism may lead individuals to avoid engaging in challenging or complex tasks (Hill & Curran, 2016). Research conducted by Correia et al. (2018) posits that perfectionism influences fear of failure, where fear of failure serves as a motivation to evade failure and the associated feelings of shame or humiliation. The fear of failure can significantly affect goal attainment and may diminish one's efforts. Supporting this perspective, Asnawi (2021) reveals a significant positive relationship between perfectionism and fear of failure.

The findings of Surahman and Adhim (2022) indicate that students who exhibit perfectionistic tendencies often experience a pronounced fear of failure. This phenomenon underscores the significant impact of perfectionism on students' apprehensions regarding potential embarrassment, the challenges posed by future changes, the loss of social influence, and the disappointment of others. Such fears can lead to feelings of inadequacy and incompetence. Similarly, Koshy et al. (2022) concluded that students who pursue perfection tend to evaluate themselves in challenging situations critically and are particularly attuned to the assessments of others, which can lead them to perceive themselves as unsuccessful in navigating these circumstances. Thus, it can be inferred that perfectionism plays a crucial role in exacerbating the fear of failure among students.

The results of the third analysis indicate that fear of failure positively affects academic procrastination. Consequently, it can be concluded that fear of failure significantly influences students' tendencies toward academic procrastination. Students who experience an increased fear of failure often doubt their abilities, which can impede their ability to complete assignments. This procrastination, or even the avoidance of challenges due to concerns regarding their ability to perform well, can worsen academic procrastination and negatively impact their mental health. Feelings of humiliation, shame, negative self-assessment, uncertainty about the future, and the desire to avoid disappointing significant individuals are

prevalent among students. Academic procrastination serves as a coping mechanism that students employ to alleviate anxiety temporarily; however, this strategy ultimately contributes to increased stress and pressure in the long term. These findings align with the research conducted by Burka and Yuen (2008) and Steinert et al. (2021), which suggests that individuals often procrastinate on tasks despite being aware of the negative consequences, mainly due to fears of harsh judgment. Furthermore, the coping mechanisms employed by students correspond with the findings of Rohaeni and Coralia (2024), which indicate that students with a high fear of failure tend to exhibit less efficient problem-solving skills and prefer to seek relief by distancing themselves from sources of tension. Therefore, it can be concluded that fear of failure significantly influences academic procrastination.

The findings from the model testing study examining the mediating role of fear of failure in the relationship between perfectionism and academic procrastination indicate that fear of failure effectively mediates the impact of perfectionism on academic procrastination. The R-squared value for academic procrastination is 0.616, suggesting that perfectionism and fear of failure collectively account for 61.6% of the variance in academic procrastination. The results further reveal that the indirect effect of perfectionism on academic procrastination is 38.4%. Elevated levels of perfectionism among students can foster a stressful internal environment wherein fear of failure becomes a predominant factor. Contributing elements such as unrealistic standards, negative self-evaluations, and heightened sensitivity to external evaluations aggravate the fear of failure experienced by students. Consequently, increased perfectionist tendencies may lead to a higher likelihood of failure in specific situations, ultimately resulting in academic procrastination.

The findings align with the research conducted by Sirois et al. (2017), which indicates that individuals exhibiting perfectionist tendencies often avoid situations requiring them to meet unrealistically high standards. Consequently, specific dimensions of perfectionism may significantly contribute to worsening academic procrastination. Furthermore, Sudirman et al. (2023) highlight the intricate relationship between perfectionism and fear of failure in the context of academic procrastination. Specifically, perfectionist tendencies can lead to delays or challenges in efficiently completing tasks, while the fear of failure may inhibit individuals from initiating or completing academic assignments due to concerns about not meeting anticipated standards. Evidence suggests that individuals with high perfectionist traits are likely to experience an increased fear of failure, which may subsequently elevate the risk of academic procrastination (Cho & Lee, 2022). Additionally, research conducted by Tak and Kim (2023) identified a mediating role of fear of failure, partially or entirely, in the relationship between increased perfectionism and academic procrastination.

The findings of this study indicate that the direct effect of perfectionism on academic procrastination is less significant than the indirect effect of perfectionism on academic procrastination mediated by fear of failure. This result suggests that fear of failure mediates the relationship between perfectionism and academic procrastination. Specifically, students exhibiting perfectionist tendencies are inclined to avoid situations that may lead to mistakes or failures, and this fear of failure aggravates such avoidance. Consequently, these students may opt to procrastinate rather than confront challenging tasks. Furthermore, fear of failure influences students' coping mechanisms in response to stress and pressure, often leading them to employ procrastination as an ineffective strategy to alleviate the discomfort they experience. Therefore, fear of failure exerts a more substantial influence due to its involvement of more intricate emotional and cognitive dimensions compared to the mere establishment of high standards associated with perfectionism in the context of academic procrastination.

The limitations of this study are primarily associated with the specific population sampled from particular institutions and the relatively small number of samples. Consequently, the findings of this research may not be generalizable to students from other universities. Additionally, the data collection method employed in the field may present opportunities for respondents to engage in impression management, potentially compromising the authenticity

of their responses.

Conclusion

Based on the research conducted, it can be concluded that perfectionism positively and significantly affects academic procrastination among students. This deduction indicates that higher levels of perfectionism in students are associated with increased academic procrastination. Additionally, perfectionism positively and significantly influences the fear of failure in students, suggesting that students with higher perfectionist tendencies also experience greater levels of fear of failure. Furthermore, fear of failure has a positive and significant impact on academic procrastination, indicating that students who experience a heightened fear of failure are more likely to engage in academic procrastination. Moreover, fear of failure significantly mediates the relationship between perfectionism and academic procrastination in students, demonstrating that fear of failure serves as a mediating factor in the influence of perfectionism on academic procrastination.

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