

## A PLS-SEM analysis of the factors behind writer's block of EFL university students

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### ABSTRACT

The phenomenon of writer's block has emerged as a significant concern within the realm of academic writing and publication, particularly in higher education. In Indonesia, many English as a Foreign Language (EFL) learners perceive academic writing as a complex talent that instills a sense of fear or apprehension. This phenomenon can induce writer's block among students. Previous research has indicated that students' beliefs and various other elements can influence the occurrence of writer's block. Nevertheless, how these circumstances affect writer's block remains a significant query for academics and educational practitioners. Hence, using structural equation modeling method, this study aims to investigate several constructs contributing to writer's block, including students' attitudes toward reading, academic stress, mental resilience, self-perceived writing abilities, and proficiency in academic writing. A questionnaire was administered to 280 participants to investigate the issue. The data was subsequently analyzed using Partial Least Square-Structural Equation Modelling (PLS-SEM). The findings indicate a statistically significant interplay correlation between the constructs. In conclusion, this study provides robust statistical evidence of the model of the constructs, validates all ten hypotheses, and underscores the complex interplay of these factors in the context of academic writing. Most notably, the study reveals that academic writing competence exerts the most substantial positive impact on writer's block ( $\beta = 0.619$ ;  $t = 14.571$ ), highlighting the critical role of enhancing writing skills in mitigating writer's block among students. Educational practitioners may utilize this study's findings to address the issue of writer's block, specifically among students in higher education.

**Keywords:** Academic writing; EFL learners; higher education; PLS-SEM; writer's block; writing self-efficacy

**First Received:**

19 October 2023

**Revised:**

18 December 2023

**Accepted:**

1 May 2024

**Final Proof Received:**

22 May 2024

**Published:**

31 May 2024

### How to cite (in APA style):

Nurkamto, J., Prihandoko, L. A., Primasita, F. A., Putro, N. H. P. S., & Purwati, O. (2024). A

PLS-SEM analysis of the factors behind writer's block of EFL university students.

*Indonesian Journal of Applied Linguistics*, 14(1), 50-63.

<https://doi.org/10.17509/ijal.v14i1.70234>

### INTRODUCTION

Writing has been a crucial skill for university students. As Huerta et al. (2016) reported, many university tasks are related to academic writing, such as scholarly articles, reports, classroom assignments, etc. Furthermore, EFL students in

English literature and English education departments, who are the participants of this study, must write an academic undergraduate thesis in English to finish their education. However, in fact, many face difficulties in writing, particularly academic writing, commonly recognized as writer's

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block. This writer's block may be in the form of writing anxiety, which is highly influenced by the students' L1 and L2 pre-university writing instruction and experience, perception of academic writing, engagement with academic discourse, and faculty members' expectations (Altınmakas & Bayyurt, 2019). Specifically in Indonesia, where this study took place, university students frequently considered academic writing a high-level skill; most students are "afraid" that it potentially leads to writer's block (Aunurrahman et al., 2017). Furthermore, Ahmed and Güss (2022) highlight the importance of psychological and motivational factors affecting students' writer's block. It indirectly means that students' state of mind, which is highly influenced by academic pressure (Sakitri, 2020) and mental toughness (Bai et al., 2020), affects their writer's block and writing performance.

Writer's block can be caused by several factors, such as low writing confidence (emotional issues), poor reading and writing habits (behavioral issues), and lack of writing feedback and encouragement (social issues) (Ahmed & Güss, 2022; Calle-Arango & Ávila Reyes, 2023). As university students frequently get stressed, anxious, and negative mood in the learning environment, these create writer's block for the students (Al Maawali, 2022; Gardner et al., 2018; Strickland et al., 2023; van der Rijst et al., 2022; Waer, 2021). It probably means that excessive university assignments and expectations may affect students' writing performances. Also, fear of errors makes students struggle in writing (Al Maawali, 2022). In his study, the students get writer's block due to their fear of making mistakes and the teachers' judgments. Furthermore, this fear of making mistakes develops writing anxiety that the students hardly start writing their writing assignments (Park, 2020). Another factor influencing writer's block is the students' writing self-efficacy. As students often have their own beliefs about writing, their negative beliefs lead into anxiety and avoidance of writing (Lu & Kim, 2021). Handling writer's block effectively may develop better writing performances (Marzuki et al., 2023; Sanders-Reio et al., 2014).

However, university students frequently encountered writer's block in performing academic writing. Prior studies reported that stress, excessive tasks, and loneliness from living alone create writer's block for students (Michels et al., 2020; Strickland et al., 2023). Furthermore, students' academic writing skills may vary depending on their prior writing exposure, self-efficacy, and beliefs about writing (Huerta et al., 2016; Mickwitz & Suojala, 2020). Their study also reported that many university students get high anxiety in writing academic texts. Also, university students often get scared of the writing evaluation, resulting in hesitation to start writing and continuously affecting their writing competence (Al Maawali, 2022).

Besides, Mickwitz and Suojala (2020) explained that writing is highly dependent on writing skills (e.g., sentence building, spelling), writing strategies (e.g., self-regulation), knowledge of writing (e.g., linguistics and content knowledge), and writers' motivation. It indicates that university students' writing competence may be different and highly affected by various factors.

One of the internal factors affecting students' writing competence is writing self-efficacy—the students' beliefs in their ability to write in a particular condition (Zumbrunn et al., 2020). Students' self-efficacy was proven to affect writing performance as writing tends to be carried out in a self-scheduled time and performed alone (Chung et al., 2021). Furthermore, since it requires a relatively long time to reach standardized writing through several revisions (McMaster et al., 2020), writing needs the self-confidence to undergo those processes. Additionally, prior studies scientifically proved that writing self-efficacy positively influenced one's writing performance (Alberth, 2019; Chung et al., 2021; Sabti et al., 2019). Also, students' writing anxiety, which is one of the typical writer's block, is highly influenced by writing self-efficacy (Göncü & Mede, 2022; Sabti et al., 2019). Therefore, it somehow indicates that ones with higher self-efficacy in writing potentially have lower writing anxiety and better writing performance.

Another one is academic pressure which is often argued to be prevalent for university students. Many factors affect university students both from social and educational levels (Michels et al., 2020). Excessive examinations and academic assignments are the most prevalent reasons university students suffer from academic stress (Abebe et al., 2018; Koudela-Hamila et al., 2020; Poots & Cassidy, 2020). Furthermore, institutions with higher standards for "good" students increase the demand for student acquisition, yet the differentiation in higher education quality can lower these standards and diminish the effort and skills of medium-ability students, particularly in societies with significant inequality where political support for highly differentiated systems is prevalent (Meier & Schiopu, 2020; Sakitri, 2020). It indeed affects the students' psychological and physical condition. According to Sakitri (2020), Indonesian students' academic stress is linked negatively with their academic performance, which means that students with lower academic stress achieve higher academic performance. It is unsurprising since higher resiliency, mindfulness, self-compassion, and consideration of future consequences, which are strongly associated with better academic performance in undergraduate students, can enhance well-being in higher education, thereby predicting educational outcomes through a combination of positive and negative effects (Egan et al., 2022;

Putwain, 2019). It also indicates that lower academic pressure may result in a more positive learning environment and better student academic performance.

Also, as writing is an activity that requires a psychological process, students' psychological condition may affect their writing competence. (Bai et al., 2020) emphasized that students' mindset significantly predicts their writing strategy, potentially affecting their writing performances. Given the significant academic pressure faced by university students, acquiring mental toughness, along with higher resiliency, mindfulness, self-compassion, and consideration of future consequences, becomes crucial as these factors are strongly associated with better academic performance in undergraduate students (Egan et al., 2022; Nguyen et al., 2021). Mental toughness is commonly defined as one's capability to bring high performance in particular demanded situations (Gucciardi & Hanton, 2016). Furthermore, since many university students live separately from their families worldwide, they potentially suffer from loneliness, academic stress, and adolescent changes with physically and psychologically unhealthy behaviors (Chacón-Cuberos et al., 2019; Michels et al., 2020). It was further found that approximately 80% of university students worldwide were under pressure due to many examinations or assignments (Abebe et al., 2018). The psychological state of students, including their mindset and mental toughness, plays a significant role in their academic performance, particularly in writing tasks. Given the high academic pressure and potential challenges such as loneliness and stress, it is crucial for students to develop resilience, mindfulness, and self-compassion, as these factors can enhance their mental toughness and subsequently improve their writing competence and overall academic performance.

The last one is the fact that reading and writing have bidirectional relations –writing influences reading, and reading influences writing (Jouhar & Rupley, 2020; Pae, 2019; Schoonen, 2019). Reading attitude is frequently defined as someone's cognitive manner to favor reading activity, have a positive mind about reading, and often read (Bastug, 2014). It indicates that someone with a good reading attitude likes reading activities. The bidirectional relation of reading and writing theory indicates that students with good reading attitudes may have good writing competence. Furthermore, Holschuh (2014) emphasized that the success of reading can be predicted by the readers' familiarity with vocabulary and text structures. Therefore, it can be argued that students' familiarity with vocabulary and text structures influences their reading and writing competence.

In recent years, writer's block has been extensively studied due to its importance and

prevalence in academic writing. This phenomenon, which involves circumstances that hinder students' progress and its influential factors, has garnered considerable attention. Ahmed and Güss (2022) reported that writer's block might appear due to students' psychological, motivational, cognitive, and behavioral conditions. They added that students commonly struggle with writing when they have stressful life events, changes in their habits, and poor health. In the same year, Al Maawali (2022) revealed that their teachers' high expectations potentially cause students' writer's block, hesitation to follow the writing samples, fear of making errors and teachers' judgments, and lack of writing confidence. He also revealed that the writer's block of university students might be reduced by implementing experiential writing using connectivism learning theory. Furthermore, Waer (2021) statistically found that automated writing evaluation (AWE) tools were helpful for remedial classes for students with writer's block. They found that students' writer's block was reduced by employing AWE in their writing class. Also, Strickland et al. (2023) examined a mindful writing workshop and proved that this program reduced students' writer's block by improving their positive emotions and attitudes toward writing.

Reviewing the theories and results from the prior studies, the relation of writer's block with academic writing competence and writing self-efficacy has been proved to be significant, while the relation with academic pressure, mental toughness, and reading attitude were rarely explored despite its significance to writer's block. In this regard, the six variables, namely writer's block, academic writing competence, academic pressure, mental toughness, reading attitude, and writing self-efficacy, are analyzed to its association and interplay in achieving good academic writing performance. Explicitly stated, this study explored how students' reading attitude, academic pressure, mental toughness, writing self-efficacy, and academic writing competence affect writer's block using exploratory factor analysis with Partial Least Square- Structural Equation Modelling (PLS-SEM) model analysis. To statistically examine these arguments, this study tested these ten hypotheses as follows:

H1: Reading attitude is associated with academic pressure.

H2: Reading attitude is associated with mental toughness.

H3: Reading attitude is associated with academic writing competence.

H4: Mental toughness is associated with academic pressure.

H5: Mental toughness is associated with writing self-efficacy.

H6: Academic pressure is associated with academic writing competence.

- H7: Academic pressure is associated with writer's block.
- H8: Academic pressure is associated with writing self-efficacy.
- H9: Writing self-efficacy is associated with academic writing competence.
- H10: Academic writing competence is associated with writer's block.

**METHOD**

**Research design**

This research utilizes a quantitative approach to investigate the interplay of factors such as reading attitude, attitude, mental toughness, academic pressure, writing self-efficacy, and academic writing and their impact on writer's block among EFL students writing their undergraduate thesis. In addition, Partial Least Square Structural Equation Modeling (PLS-SEM) is employed for data analysis due to the exploratory nature of this research, which aligns with the theory prediction purpose (Henseler

et al., 2015). The model (see Figure 1) includes both exogenous (independent) and endogenous (dependent) variables, with the relationships between them clearly defined. Moreover, the sample size for this study is determined based on the rule of thumb that suggests a minimum of 10 respondents per path in the model (Kwong-Kay, 2013). This leads to a sample size of between 100-200 (Kwong-Kay, 2013), which is deemed sufficient for carrying out the PLS-SEM research model.

**Respondents**

A total of 280 students of English literature and English education departments from five Indonesian universities were involved in this study. This study employed purposive sampling to select the respondents who finished their proposal seminar and were writing their theses. Furthermore, as a research ethic, this study was approved by each selected university's LPPM (research institute). Additionally, Table 1 depicts the respondent demography.

**Table 1**  
*Demographic profile (Number of participants = 280)*

Category	Percentage of participants
<b>Gender</b>	
Male	40.7
Female	59.3
<b>Age</b>	
20	4.3
21	13.9
22	23.2
23	21.1
>24	37.5
<b>Discipline</b>	
English Literature	43.9
English Education	56.1
<b>Daily time spent on the internet</b>	
< 1 hour	4.3
1-2 hours	19.6
2-3 hours	14.3
3-4 hours	14.3
> 4 hours	47.5
<b>Daily time spent using a notebook</b>	
< 1 hour	12.5
1-2 hours	31.1
2-3 hours	26.1
3-4 hours	12.5
> 4 hours	17.9

Table 1 presents the demographic profile of the 280 participants involved in this study. The sample comprises 40.7% male and 59.3% female participants, reflecting a higher representation of females. The age distribution shows a predominance of younger adults, with 23.2% of participants aged 22, followed by 21.1% aged 23, and 37.5% over the age of 24. Participants primarily belong to two academic disciplines: 43.9% are studying English Literature and 56.1% are in English Education

programs. In terms of digital habits, a significant portion of the participants (47.5%) reported spending more than four hours daily on the internet, indicating a high engagement with digital platforms. Additionally, daily notebook usage varied, with 31.1% spending one to two hours, and 26.1% spending two to three hours, suggesting moderate to high reliance on digital devices for academic and personal use.

### **Instruments**

The research instrument was adapted from the previous research consisting of variables: academic writing (Iwasaki et al., 2019) in 7 items, writing self-efficacy (Bruning et al., 2013) in 5 items, writer's block (Bastug et al., 2017) in 6 items, mental toughness (St Clair-Thompson et al., 2015) in 6 items, academic pressure (Bedewy & Gabriel, 2015) in 5 items, and reading attitude (Kırmızı, 2011) in 8 items. This instrument used a 5-point Likert scale (1 = strongly disagree to 5 = strongly agree). The selection and adaptation of the research instruments were strategically aligned with the study's objectives to explore under-researched associations between writer's block and academic competencies. Four strategies were selected to achieve the instrument's validity and reliability, as suggested by Dörnyei and Taguchi (2019). First, selected doctoral students from the translation study translated the device into Indonesian. Second, two professors from English language education and linguistics study then carried out the face validity. Two items on writer's block and two on academic pressure were corrected in this stage. Third, content validity was carried out by involving ten prospective respondents. This stage resulted in prospective respondents stating that the items in the questionnaire were clear, unbiased, and not redundant. Fourth, in the final stage, the researcher conducted pilot testing involving 40 prospective respondents to complete an online questionnaire. The data obtained were tested for reliability and validity using SPSS 23. The results show that Cronbach's alpha value was 0.88, and the r-obtain value was 0.58-0.74. with r table 0.25. Based on the measurements, the instrument was classified as demonstrating a high degree of reliability and validity (Brown, 2002).

### **Procedures**

As the research instrument exceeded the validity and reliability, it was written in Google Forms to ease the data collection process. The respondents received the forms from the faculty staff and were required to complete the questionnaires within two weeks in August 2022. The results were then downloaded, and the data analysis process proceeded.

### **Data analysis**

This study employed PLS-SEM analysis (Hair et al., 2016) to perform the data processing. PLS-SEM was chosen for this study due to its exploratory research purpose, which involves developing path modeling. This is in contrast to a confirmatory purpose, for which CB-SEM would be more suitable (Hair et al., 2017). In the initial stage of the data

processing, coding was used to identify each variable and ease the data analysis and interpretation: RA (Reading Attitude), MT (Mental Toughness), AP (Academic Pressure), WSE (Writing Self-Efficacy), AWC (Academic Writing Competence), and WB (Writer's block) in Microsoft Excel. The data were then saved in the form of a .csv extension. Then, SmartPLS 3.2 was employed to carry out analysis through the stages of model specification, measurement model assessment, and structural model assessment (Hair et al., 2019).

First, model specification was used to define the constructs in the model (exogenous and endogenous) and establish the relationships between them. Second, measurement model assessment was carried out by obtaining the value of indicator reliability, construct reliability, and construct validity. This stage was followed up by measuring the discriminant validity value. This stage was conducted to confirm the reliability and validity of the constructs with their indicators. Last, a structural model assessment was carried out to evaluate the hypotheses on the inner model. In this stage, the variance inflation factor was tested. Then, path analysis was performed to determine the path coefficients of the constructs. In addition, the measurement of predictive accuracy ( $R^2$ ) and relevancy ( $Q^2$ ) was carried out.

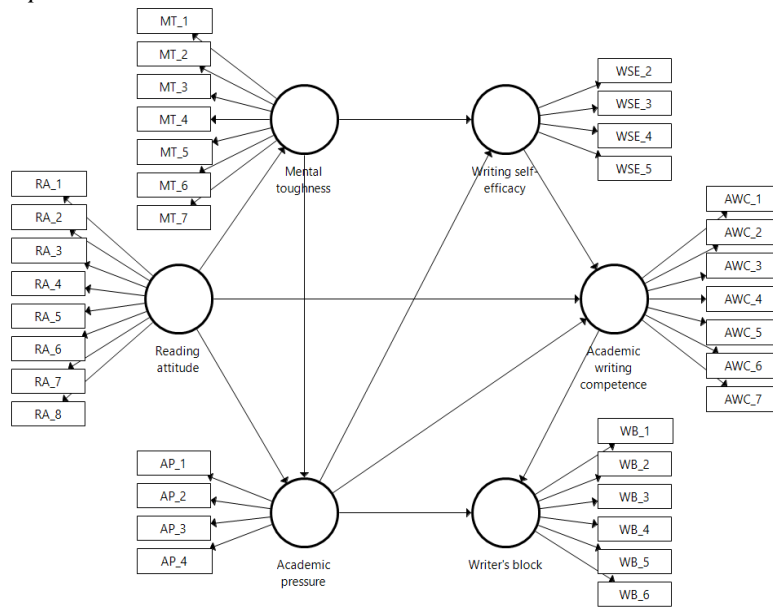
### **FINDINGS AND DISCUSSION**

Our study utilized PLS-SEM to thoroughly examine the interactions between academic competencies and psychological factors that affect writer's block in students. Based on the assessment of the measurement model showed strong indicator loadings and composite reliability, verifying the convergent validity of our constructs. Additionally, discriminant validity was confirmed, indicating minimal overlap between constructs. The structural model assessment showed no multicollinearity concerns, and path analysis validated all hypothesized relationships, particularly highlighting the significant impact of academic writing competence on writer's block.

#### **Model specification**

Figure 1 shows the model specification of this research. The formulated model is reflective with six inner models and 37 outer models. Reading attitude is particularly the exogenous variable. Meanwhile, mental toughness, academic pressure, writing self-efficacy, and academic writing competence are exogenous and endogenous variables. Then, academic writing competence is the endogenous variable.

**Figure 1**  
Proposed Model



**Measurement model assessment**

The second step was to evaluate the outer model. An analysis was employed to obtain the value of indicator loading (IL), composite reliability (CR),

average variance extracted (AVE), and Heterotrait-monotrait Ratio (HTMT). The results of IL, CR, and AVE can be seen in Table 2.

**Table 2**  
Construct Reliability and Validity

	IL	CR	AVE
Academic pressure		0.814	0.593
AP_1	0.781		
AP_2	0.766		
AP_3	0.763		
Mental toughness		0.875	0.583
MT_2	0.705		
MT_3	0.793		
MT_4	0.786		
MT_6	0.764		
MT_7	0.766		
Academic writing competence		0.911	0.632
AWC_1	0.738		
AWC_2	0.829		
AWC_3	0.804		
AWC_4	0.821		
AWC_6	0.774		
AWC_7	0.800		
Reading attitude		0.893	0.626
RA_4	0.747		
RA_5	0.823		
RA_6	0.772		
RA_7	0.821		
RA_8	0.792		
Writer's block		0.92	0.698
WB_2	0.776		
WB_3	0.795		
WB_4	0.877		
WB_5	0.863		
WB_6	0.863		
Writing self-efficacy		0.892	0.673
WSE_2	0.796		
WSE_3	0.795		
WSE_4	0.830		
WSE_5	0.859		

The obtained value of IL (see Table 2) indicates that some indicators, namely AP\_4, MT\_1 and 3, AWC\_5, RA\_1-3, WB\_1, and WSE\_1, were

dropped since the obtained value is lower than the suggested threshold of 0.708 by (Hair et al., 2014). Then, the obtained value of CR shows that the

model is in the range of 0.814-0.920. The threshold value of CR should be in the range of 0.70-0.95 (Hair et al., 2014). The model construct achieved a reasonable degree of internal consistency and reliability by looking at the obtained value of IL and CR.

An analysis was then carried out to achieve the AVE value and ensure the construct validity. The AVE value in Table 2 shows the range of 0.583-0.698. Meanwhile, Hair et al. (2019) proposed that the AVE value should be higher than 0.50 to achieve the validity of the construct. As can be seen

in the obtained value of AVE, the convergent validity of the constructs was confirmed.

The last analysis in measurement model assessment was discriminant validity assessment. This step was used to avoid bias in the outer model due to the overlaps among the constructs. Table 3 shows that HTMT is in the range of 0.433-0.829. Based on the obtained HTMT value, the constructs of the model achieved the proposed discriminant validity value, which is lower than 0.850, as suggested by (Hair et al., 2014).

**Table 3**  
*Heterotrait-Monotrait Ratio (HTMT)*

	AP	MT	AWC	RA	WB
AP					
MT	0.671				
AWC	0.769	0.534			
RA	0.602	0.573	0.582		
WB	0.740	0.473	0.829	0.562	
WSE	0.566	0.433	0.733	0.567	0.657

**Structural model assessment**

The third stage in the PLS-SEM analysis was the structural model assessment, which began with multicollinearity testing. This test was used to obtain the Variance Inflation Factor (VIF) value to ensure that there is no multicollinearity issue that results in bias in the path analysis (Ghasemy et al., 2020). The threshold value that is used as a reference is not to exceed 3.0 (Sarstedt et al., 2021).

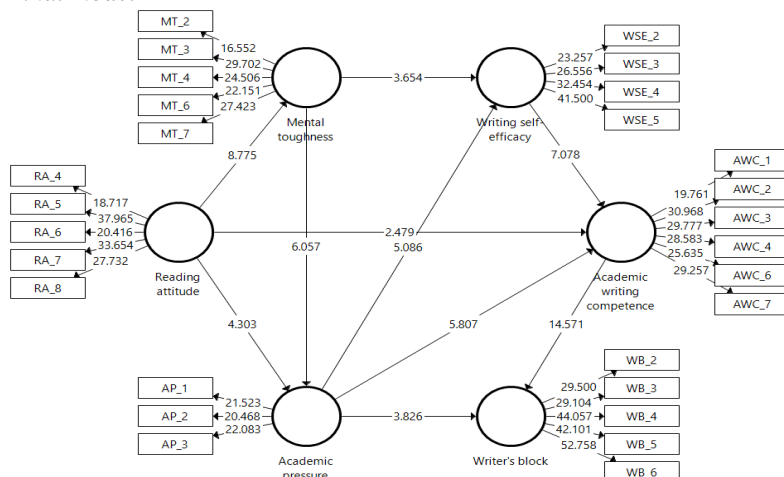
VIF acquisition in Table 4 shows a range of 1,000-1,526. Thus, there is no multicollinearity issue in the six constructs contained in the model.

Then, the path analysis was performed by bootstrapping (5% of significance level) on the final model. Figure 2 (see the numbers on the arrows) shows that the acquisition value for each construct is positive (+1).

**Table 4**  
*Variance Inflation Factor*

	AP	MT	AWC	RA	WB	AP
AP			1.354		1.526	1.331
MT	1.303					1.331
AWC					1.526	
RA	1.303	1.00	1.454			
WB						
WSE			1.398			

**Figure 2**  
*Final model*



Referring to the threshold of the reference value framework (-1 = strong negative and +1 = strong positive) (Hair et al., 2014), each construct in the model is categorized in a strong positive relationship. Then, in testing the hypothesis, the reference value for acquiring the t statistic is higher than 1.96 (Hair et al., 2017). The value obtained in the path analysis (see Table 5) shows that the model has a value of 2,449-13,582. Thus, the ten hypotheses formulated in the model were supported.

H10 has the strongest value of positive significance. Academic writing competence significantly affects writer's block ( $\beta = 0.619$ ;  $t = 14.571$ ;  $p = 0.000$ ), followed by reading attitude affecting academic writing competence (H2) ( $\beta = 0.482$ ;  $t = 8.775$ ;  $p = 0.000$ ). Then, H9 was supported ( $\beta = 0.413$ ;  $t = 7.078$ ;  $p = 0.000$ ) in which

writing self-efficacy is the significant predictor of academic writing competence. Meanwhile, mental toughness significantly affects academic pressure ( $\beta = 0.363$ ;  $t = 6.057$ ;  $p = 0.000$ ). Then, H6 and H8 (academic pressure affects academic writing competence and writing self-efficacy) were supported with t-values =  $>5.000$ . Furthermore, H1 also confirmed that reading attitude is a significant predictor of academic pressure ( $\beta = 0.282$ ;  $t = 4.303$ ;  $p = 0.000$ ). Then, with t-value =  $>3.500$ , H7 and H5 were supported in which mental toughness affects writing self-efficacy ( $\beta = 0.205$ ;  $t = 3.826$ ;  $p = 0.000$ ) and academic pressure affects writer's block ( $\beta = 0.194$ ;  $t = 3.654$ ;  $p = 0.000$ ). Last, reading attitude is the significant predictor of academic writing competence ( $\beta = 0.156$ ;  $t = 2.479$ ;  $p = 0.014$ ), in which H3 was thus supported.

**Table 5**  
*Path Analysis Result*

Independent variable	Dependent variable	Hypothesis	$\beta$	t-value	p-value	Result
RA	AP	H1	0.282	4.303	0.000	Supported
	MT	H2	0.482	8.775	0.000	Supported
	AWC	H3	0.156	2.479	0.014	Supported
MT	AP	H4	0.363	6.057	0.000	Supported
	WSE	H5	0.204	3.654	0.000	Supported
AP	AWC	H6	0.342	5.807	0.000	Supported
	WB	H7	0.205	3.826	0.000	Supported
	WSE	H8	0.320	5.086	0.000	Supported
WSE	AWC	H9	0.413	7.078	0.000	Supported
AWC	WB	H10	0.619	14.571	0.000	Supported

The last analysis of the structural model assessment was to measure the model's predictive accuracy (R<sup>2</sup>) and relevance (Q<sup>2</sup>). A coefficient of determination analysis was employed to obtain R<sup>2</sup>. The obtained value of R<sup>2</sup> is categorized into weak (0-0.10), modest (0.11-0.30), moderate (0.30-0.50), and strong ( $> 0.50$ ) (Hair & Alamer, 2022). Table 6 shows that academic writing competence and writer's block have strong predictive accuracy ( $> 0.50$ ), while academic pressure has moderate predictive accuracy. Meanwhile, mental toughness and writing self-efficacy have modest predictive accuracy.

A blindfolding was then carried out to obtain the predictive relevance value (Q<sup>2</sup>) with categories of 0 (small), 0.25 (medium), and 0.50 (large) (Hair & Alamer, 2022). Meanwhile, (Sarstedt et al., 2021) proposed that a well-constructed model has predictive relevance  $>0$ . The obtained value of Q<sup>2</sup> in the model (see Table 5) shows that predictive relevance in the construct of academic writing competence and writer's block were in the category of medium ( $> 0.25$ ). Meanwhile, the constructs of academic pressure, mental toughness, and writing self-efficacy were in the category of small predictive relevance.

**Table 6**  
*Predictive accuracy (R<sup>2</sup>) and Predictive relevance (Q<sup>2</sup>)*

Construct	R <sup>2</sup>	Consideration	Q <sup>2</sup>	Predictive relevance
AP	0.310	Moderate	0.173	Small
MT	0.232	Modest	0.129	Small
AWC	0.542	Strong	0.333	Medium
WB	0.574	Strong	0.395	Medium
WSE	0.209	Modest	0.137	Small

**Discussion**

This study explores the interplay of factors affecting the writer's block of university students in Indonesia. The analysis resulted in a significant relationship between the research variables:

academic writing competence, students' mental toughness, reading attitude, academic pressure, writing self-efficacy, and writer's block. Accordingly, all ten hypotheses of this study were accepted.



The first result mainly indicates that reading attitude is statistically associated with academic pressure, mental toughness, and academic writing competence. It may be interpreted that students' favor of reading activities is related to their effort in handling academic pressure and maintaining a positive mindset, which potentially affects their academic writing competence. As students can manage their excessive academic stress, they can potentially retain their positive mindset and high motivation (McGeown et al., 2015). Their "peaceful" state of mind potentially creates a positive attitude toward their activities, including reading activities. As they frequently engage in reading activities, they potentially acquire a rich vocabulary and a high familiarity with writing structure (Teng, 2022), which are beneficial in their writing activities. Furthermore, Jouhar and Rupley (2020) reported that good reading skills directionally create good writing skills. Also, Zorbaz (2015) reported that students with good reading habits tended to perform better in academic writing than those with poor reading habits. Accordingly, the findings of this current study strengthen and give statistical evidence to the bidirectional theory of reading and writing (Jouhar & Rupley, 2020; Pae, 2019; Schoonen, 2019).

Secondly, mental toughness is interestingly associated with academic pressure and writing self-efficacy. It indicates that students with good mental toughness may handle excessive academic pressure and maintain good writing self-efficacy. This finding supports previous findings that maintaining a positive mindset affects students' writing strategy (Bai et al., 2020; Djatmika et al., 2022). As students positively handle their academic pressure, they potentially have good writing self-efficacy. Furthermore, students' good mindset creates an ability to manage their time and activities well, which results in good writing self-efficacy (Huerta et al., 2016; McGeown et al., 2015). Students with good mental toughness are able to handle their learning process independently which leads to good writing performance. Clair-Thompson and Devine (2023) have statistically reported that students with high mental toughness have better feedback uptake that it has positive impact on their writing performance.

Furthermore, acquiring writing self-efficacy reduces writer's block and improves writing academic competence. This study statistically shows that academic writing is associated with writer's block. It further implies that overcoming writer's block results in good academic writing competence, supporting the initial finding of Marzuki et al., (2023). Therefore, mental toughness could help students remain focused and motivated, even under stressful circumstances, leading to better academic performance. Furthermore, this finding interestingly gives additional insight into the fact that mental

toughness is also related to the student's writing competence, which has hardly been studied by prior studies.

Thirdly, academic pressure is associated with academic writing competence, writer's block, and writing self-efficacy. It shows that controlled academic pressure positively affects the students' academic writing competence. As Abebe et al., (2018) noted, excessive examinations and assignments cause students to suffer physically and psychologically. This condition may cause writer's block for the students as they suffer from poor physical and psychological conditions due to excessive academic pressure. Furthermore, one of the writer's blocks may be poor writing self-efficacy, as high academic achievement demands potentially reduce the students' self-efficacy. Alongside, university students are reportedly afraid of making errors and the teachers' judgemental results (Al Maawali, 2022; Park, 2020),

Furthermore, in line with Abebe et al.,'s (2018) and Sakitri's (2020), our finding emphasizes the negative impact of excessive academic pressure on university student's academic competence. Moreover, academic pressure significantly affected academic writing competence and writer's block, suggesting that excessive academic pressure may negatively impact students' writing abilities. Students who feel pressured to perform well academically may be more likely to develop a sense of self-doubt and insecurity about their writing abilities. This finding highlights the importance of creating supportive learning environments that foster confidence in students' writing abilities (Nurkamto et al., 2022). In addition, it is important to reduce academic pressure on students to foster better academic writing competence and reduce the likelihood of writer's block.

The results also indicate that writing self-efficacy is associated with academic writing competence related to writer's block. This relationship may be interpreted that students' writing self-efficacy positively affects their academic writing competence and simultaneously reduces their writer's block. As students with high writing self-efficacy can manage their own time to write and have high confidence in their writing (Huerta et al., 2016), they commonly have high writing competence and better writing performance. The findings of this current study strengthen the positive relationship between writing self-efficacy and academic writing competence (Alberth, 2019; Huerta et al., 2016). Furthermore, students' high academic writing competence reduces writer's block as they have the ability to handle their writing assignments well.

In addition, the results of this study indicate that academic writing competence has the strongest positive impact on writer's block. Previous study underscores the importance of metacognitive

knowledge and regulation skills in improving the writing performance of university EFL learners (Teng, 2020). While higher self-regulated learning and cognitive factors enhance students' writing proficiency, sociodemographic and motivational factors can pose challenges (Nikčević-Milković et al., 2022). Therefore, it is crucial to develop comprehensive strategies to foster metacognitive skills and self-regulated learning, as these may decrease writer's block. Students who lack competence in academic writing may be more likely to experience writer's block, which can hinder their ability to produce high-quality writing. This finding highlights the importance of providing students with the necessary skills and resources to develop their academic writing competence, which can ultimately improve their writing productivity and quality.

Lastly, since this study was conducted in an EFL context, the students potentially acquire high writer's block due to relatively low exposure and usage of the English language (Akbarian et al., 2020; Hawa et al., 2021). It indicates that EFL students have higher chances of acquiring writer's block than those with English as their first language. As this study statistically proved that writer's block is indirectly correlated with writing self-efficacy, it explains that EFL students have lower confidence in writing in a foreign language than in their native language. This finding somehow aligns with Fajrina et al., (2021) that EFL Indonesian learners frequently find it challenging to write in English. Therefore, it may be a consideration for practitioners in the EFL context to find a way to foster students' confidence in writing in English and improve their exposure to and usage of English in the student's daily life.

The findings of this research have several practical implications. Firstly, the strong positive relationship between academic writing competence and writer's block suggests that interventions aimed at improving students' writing skills could potentially alleviate writer's block. This could involve workshops or courses focused on academic writing. Secondly, the significant impact of reading attitude on academic writing competence implies that fostering a positive attitude towards reading could enhance students' writing abilities. This could be achieved through reading clubs or integrating more reading assignments into the curriculum. Thirdly, the influence of mental toughness on academic pressure indicates that mental resilience training could help students cope with academic stress, thereby improving their writing performance. Lastly, the role of writing self-efficacy in predicting academic writing competence suggests that boosting students' confidence in their writing abilities could enhance their academic writing performance. This could be done through positive feedback and encouragement.

## **CONCLUSION**

This study investigated the interplay of factors influencing writer's block: students' reading attitude, academic pressure, mental toughness, writing self-efficacy, and academic writing competence. As the results of the analysis show, this study statistically proved a significant relationship among writer's block, students' mental toughness, reading attitude, academic pressure, writing self-efficacy, and academic writing competence, confirming all ten hypotheses. Furthermore, this study highlights the importance of considering students' reading attitudes to perceive good academic writing performance, as reading and writing are statistically associated and have a bidirectional relationship. The extensive impact of reading attitude, as an exogenous construct, across multiple domains of academic and psychological constructs was notably profound and somewhat unpredicted. This could be interpreted as reading not only enhancing cognitive and linguistic capabilities but also serving as a psychological buffer. Thus, while reading attitude's influence was expected within the realm of academic competence, its pervasive effect across other psychological constructs was unpredicted and points to the multifaceted benefits of cultivating strong reading habits. Therefore, educators must try to maintain or improve students' reading attitudes. Also, since mental toughness and academic pressure were related to writer's block and academic writing performance, it seems that there is a need for university faculty to provide programs for maintaining students' mental toughness and handling academic pressure. Last, this current enriches the literature on writer's block and academic writing performance by adding other influencing factors, such as students' mental toughness and academic pressure, which are hardly explored by prior studies.

Despite its contributions, this study has several limitations. The sample size, while sufficient for the PLS-SEM model, is relatively small and limited to students from five Indonesian universities. Therefore, the findings may not be generalizable to all EFL students writing their undergraduate thesis. Future research could benefit from using a larger, more diverse sample and employing random sampling techniques. Moreover, as this study is quantitative, further studies investigating the factors influencing writer's block using qualitative research design may be recommended. It may give another perspective of looking at the factors influencing writer's block and strengthen the results of the quantitative ones. Also, since mental toughness and academic pressure were related to writer's block, further studies may address this issue to analyze further how this factor affects students' writer's block and academic writing performance. Furthermore, a comparative study on a similar topic

in different countries with different student characteristics and more extensive data sources may be addressed to extend the investigation of writer's block, particularly in higher education.

#### ACKNOWLEDGEMENTS

The authors received financial support from Universitas Sebelas Maret grant number 228/UN27.22/PT.01.03/2023.

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