

## The Influence of FOMO and Self-Control on the Academic Concentration of Students of the University of Muhammadiyah Palopo

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### ABSTRACT

This study aims to analyze the influence of fear of missing out (FOMO) and self-control on the academic concentration of students of the University of Muhammadiyah Palopo, both partially and simultaneously. This study uses a quantitative approach with an associative type. The research population amounted to 1,040 students of the Faculty of Teacher Training and Education, with a sample of 91 respondents selected using the proportional stratified random sampling technique. Data were collected through a Likert scale questionnaire and analyzed using multiple linear regression with the help of SPSS. The results showed that partially FOMO did not have a significant effect on academic concentration (Sig. = 0.108 > 0.05), which means that FOMO did not directly affect students' ability to maintain focus on learning. In contrast, self-control had a positive and significant effect on academic concentration (Sig. = 0.001 < 0.05), which suggests that the higher the self-control, the better the student's academic concentration. Simultaneously, FOMO and self-control had a significant effect on academic concentration (Sig. = 0.001 < 0.05). The value of the determination coefficient ( $R^2$ ) of 0.794 indicates that 79.4% of the variation in academic concentration can be explained by both variables. In conclusion, self-control is the dominant factor that affects academic concentration, whereas FOMO has no significant direct influence.



## Introduction

The phenomenon of declining academic concentration in students is an important concern in today's digital era. The rapid development of information technology has changed the learning patterns of students, where unlimited access to information, intensive use of gadgets, and constant notification flows cause difficulties in maintaining focus for a long duration. Research shows that nomophobia, which is excessive anxiety when away from mobile phones, has been shown to reduce students' ability to concentrate and academic productivity (Ain *et al.*, 2025). These findings are reinforced by international studies that show that the high intensity of smartphone use correlates with low concentration ability and learning effectiveness among college students (Leonhardt *et al.*, 2025).

In addition to digital factors, academic concentration is also influenced by various internal and external factors. Inappropriate learning styles can weaken students' focus and increase distractions during the learning process (Ahmad & Andini, 2024). Environmental factors such as teaching methods, classroom atmosphere, and students' mental readiness also contribute to the level of attention in academic activities (I *et al.*, 2025). On the other hand, physiological factors such as sleep quality have an important role, where students with poor sleep patterns tend to experience a decrease in concentration and information absorption (Arifin *et al.*, 2024). This shows that academic concentration is the result of a complex interaction between individual conditions and the learning environment.

In the context of the psychological development of students, the phenomenon *fear of missing out* (FOMO) is one of the increasingly relevant factors. FOMO is a condition when individuals feel anxious or afraid of being left behind by other people's experiences, information, or activities, especially through social media. This condition encourages students to stay connected online, so that their attention is easily distracted and the focus span becomes shorter (Azzahra *et al.*, 2024). Research shows that students with high levels of FOMO tend to experience concentration disorders, academic stress, and decreased sleep quality due to excessive use of social media (Kong *et al.*, 2024; Qutishat & Sharour, 2019).

Self-control (*self-control*) is an internal factor that plays an important role in maintaining academic concentration. Individuals with good self-control are able to effectively manage their emotions, time, and learning behaviors, as well as resist the urge to engage in activities that are not relevant to academic goals (Duckworth *et al.*, 2019). Studies show that self-control is positively related to academic achievement and is able to suppress procrastination behaviors (Nugroho & Jaryanto, 2024; Purba & Damra, 2025). On the other hand, low self-control causes students to be more easily distracted by social media and other digital activities, making it difficult to maintain their focus on learning.

Relationship between *fear of missing out* (FOMO), self-control, and academic concentration can be explained through *self-regulation theory* submitted by (Zimmerman, 1989). This theory explains that academic success is influenced by an individual's ability to regulate thoughts, emotions, and behaviors to achieve learning goals. In the context of this study, FOMO and self-control are psychological factors that can affect students' ability to

maintain focus during the learning process. Students who have good self-regulation skills tend to be better able to manage various factors that can affect their academic concentration.

In particular, the influence of FOMO on academic concentration can be explained through *attentional control theory* submitted by (Eysenck et al., 2007), which states that anxiety can interfere with attention control so that individuals are more easily distracted by information or other activities outside of the main task. Meanwhile, the effect of self-control on academic concentration can be explained through *self-control theory* submitted by (Baumeister & Heatherton, 1996), explaining that individuals with good self-control are able to regulate their thoughts, emotions, and behaviors to achieve long-term goals. Therefore, students with high self-control tend to be better able to manage distractions and maintain concentration in academic activities.

Research on fomo and self-control has been extensive, most studies still focus on each variable separately, such as the effect of fomo on learning engagement or the effect of self-control on academic procrastination (Azzahra *et al.*, 2024; São *et al.*, 2024; Purba & Damra, 2025). Research that simultaneously examines the influence of these two variables on academic concentration, especially in the context of students in Indonesia, is still limited. This shows that there are research gaps that need to be filled to gain a more comprehensive understanding.

Based on this background, the formulation of the problem in this study is: how does *fear of missing out* (FOMO) and self-control (*self-control*), both partially and simultaneously, affect the academic concentration of students of the University of Muhammadiyah Palopo? This study aims to analyze the influence of these two variables and obtain an empirical picture of the role of psychological factors in determining student learning concentration in the digital era.

This study uses a quantitative approach by examining the relationship between fomo and self-control over academic concentration. This research is expected to make a theoretical contribution to the development of the study of educational psychology, especially related to self-regulation in the digital era, as well as provide practical implications for students and educational institutions in improving the quality of learning.

Based on the theoretical framework and previous empirical findings, the hypotheses proposed in this study are as follows: (1) FOMO has a negative effect on students' academic concentration; (2) self-control has a positive effect on students' academic concentration; and (3) FOMO and self-control simultaneously have a significant effect on students' academic concentration.

## Method

This study uses a quantitative approach with an associative research type that aims to analyze the influence between variables numerically through statistical testing. The focus of this study is to test the influence of *fear of missing out* (FOMO) and self-control on the academic concentration of students of the University of Muhammadiyah Palopo, both

partially and simultaneously. The research was carried out at the University of Muhammadiyah Palopo for four months, namely January to April 2026, which included the stages of preparation, collection, and data analysis.

The population in this study is all students of the Faculty of Teacher Training and Education, University of Muhammadiyah Palopo for the 2025/2026 academic year which amounted to 1,040 students. The sampling technique uses *proportional stratified random sampling* to ensure the representation of each study program that has a different number of populations. The number of samples was determined using the Slovin formula with an error rate of 10%, so that 91 respondents were obtained. The sample was then distributed proportionally in each study program, namely counseling guidance (34 students), physical education (40 students), early childhood education (13 students), and English education (4 students), with the selection of respondents in each strata being random.

The data used in this study is quantitative data obtained through the distribution of questionnaires to respondents as a primary data source, and supported by secondary data derived from books, journals, and previous research that are relevant to the research variables. The data collection technique was carried out through the distribution of questionnaires online using *google forms*. The research instruments were compiled based on theoretical indicators on each variable, namely FOMO which refers to *attentional control theory*, self-control which refers to *self-control theory*, and academic concentration which is based on *self-regulation theory*. Each item in the questionnaire was measured using a Likert scale of 1–5.

Operationally, FOMO is defined as the level of students' anxiety about missing information or social activities on social media, self-control as the ability of students to control impulses, emotions, and behaviors to stay focused on academic activities, and academic concentration as the ability to focus attention, avoid distractions, and maintain focus during the learning process.

Data analysis was carried out using multiple linear regression analysis with the help of the SPSS program. The analysis stages include data quality tests through validity and reliability tests, classical assumption tests consisting of normality, multicollinearity and heteroscedasticity tests, and hypothesis tests that include multiple linear regression tests, partial tests (t tests), simultaneous tests (F tests), and determination coefficient ( $R^2$ ) tests. This test aims to determine the magnitude of the influence of independent variables on dependent variables and the level of significance of the relationship between variables in the study.

## Results and Discussion

The results of multiple linear regression analysis showed that the *variables of fear of missing out* (FOMO) and self-control contributed to explaining the variation in students' academic concentration. In general, the research model showed significant results, but

partially each variable had a different degree of influence. Therefore, the following discussion outlines the influence of each variable.

### 1. The Effect of FOMO on Academic Concentration

The results of the hypothesis test showed that the *fear of missing out* (FOMO) variable did not have a significant influence on students' academic concentration.

**Table 1. Partial Test (t-test)**

Coefficients <sup>a</sup>								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.610	2.239		.273	.786		
	X1	.107	.066	.103	1.626	.108	.584	1.712
	X2	.764	.059	.821	12.968	<.001	.584	1.712

a. Dependent Variable: Y

Based on the table above, a significance value of 0.108 ( $> 0.05$ ) was obtained, so it can be concluded that the FOMO variable does not have a significant effect on academic concentration. In addition, a regression coefficient value of 0.107 indicates that FOMO has a positive relationship direction, but the influence is not strong enough to be statistically significant. These findings indicate that students' FOMO levels do not directly affect their ability to concentrate while studying.

This influence can be explained that students have been able to adapt to various digital distractions and can maintain focus in academic activities. Students are now used to digital distractions, such as notifications or social media and are not too distracted because they can control themselves and know when to focus and when to open their phones. In addition, academic concentration is more influenced by internal factors such as how strong the motivation is to learn and interest in the material, so that the influence of FOMO is not dominant. The results of this study are in line with previous findings that FOMO does not have a significant effect on academic achievement, although there is a tendency for negative associations (Qutishat & Sharour, 2019; Elsayed, 2025).

### 2. The Effect of Self-Control on Academic Concentration

The test results showed that self-control had a positive and significant influence on students' academic concentration.

**Table 2. Partial Test (t-test)**

Coefficients <sup>a</sup>								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.610	2.239		.273	.786		
	X1	.107	.066	.103	1.626	.108	.584	1.712
	X2	.764	.059	.821	12.968	<.001	.584	1.712

a. Dependent Variable: Y

Based on the table, a significance value of  $0.001 < 0.05$  and a regression coefficient of 0.764 were obtained. This shows that self-control has a positive and significant effect on academic concentration. This means that the higher the level of student self-control, the higher the academic concentration they have.

These findings suggest that an individual's ability to control behavior, emotions, and attention has an important role in maintaining focus on learning. This can be explained by the fact that individuals who have high self-control are able to delay momentary gratification (such as playing on the phone or other irrelevant activities) in order to achieve the long-term goal of academic success. In addition, they are better able to manage study time effectively, maintain emotional stability when facing academic pressure, and redirect attention when they start to be distracted, so that the learning process becomes more directed, efficient, and deep, and academic concentration can be well maintained. These findings are in line with the theory *self-regulation* which states that individuals with good self-control tend to be able to manage distractions and maintain concentration in academic activities. The results of this study are in line with previous research which stated that self-control has a positive effect on learning concentration (Mufidah, 2023). In addition, other research has also shown that self-control has a positive effect on students' academic achievement (Shi & Yang, 2025). This research is also supported by the results of the research (Purba & Damra, 2025).

### 3. Partial Effect of FOMO and Self-Control on Academic Concentration

The test results showed that FOMO and self-control simultaneously had a significant effect on students' academic concentration.

**Table 3. Simultaneous Test (Test f)**

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5341.272	2	2670.636	169.524	<.001 <sup>b</sup>
	Residual	1386.332	88	15.754		
	Total	6727.604	90			

a. Dependent Variable: Y  
b. Predictors: (Constant), X2, X1

The results of the simultaneous tests in the table above show a significance value of  $< 0.001$ , which is smaller than the significance level of 0.05. These results show that the variables of *Fear of Missing Out* (FOMO) and self-control together or simultaneously have a significant effect on academic concentration. Thus, the hypothesis that FOMO and self-control simultaneously affect academic concentration is acceptable. These findings indicate that students' academic concentration is not only influenced by a single factor separately, but also by a combination of various psychological factors that interact with each other in influencing an individual's ability to concentrate on academic activities.

The results of this study show that although FOMO does not have a significant influence on academic concentration, its existence still has a contribution when analyzed together with self-control variables. These findings are in line with previous research that stated that FOMO does not have a direct effect on academic performance, but rather through intermediate variables such as social media use and individual behavior patterns in interacting with the digital environment (Rozgonjuk *et al.*, 2021). In addition, self-control is known to be one of the important factors that contribute to academic success because it relates to the ability of individuals to regulate attention, emotions, and behavior to stay oriented towards the goals they want to achieve (Duckworth *et al.*, 2019).

Based on these results, it can be understood that the influence of FOMO on academic concentration becomes more visible when studied together with the level of self-control that students have. Individuals with high levels of FOMO but have good self-control tend to be able to manage the urge to stay on top of information or activities on social media so that it doesn't interfere too much with the focus of learning. In contrast, individuals who have low self-control will be more susceptible to being distracted by the fear of missing out on information, which can ultimately reduce their academic concentration. Therefore, although FOMO did not have a partially significant effect, the combination of FOMO and self-control in this study model was shown to have a significant influence on students' academic concentration. These findings show the importance of the role of self-control in helping students manage the negative impact of FOMO so that the ability to concentrate in academic activities can be well maintained.

Furthermore, the magnitude of the influence of the two variables can be seen on the value of the determination coefficient.

**Table 4. Coefficient of Determination (R<sup>2</sup>)**

<b>Model Summary<sup>b</sup></b>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.891 <sup>a</sup>	.794	.789	3.96910
a. Predictors: (Constant), X2, X1				
b. Dependent Variable: Y				

Based on the table above, the value of R Square (R<sup>2</sup>) is 0.794. The score showed that 79.4% of the variation in academic concentration could be explained by the *Fear of Missing Out* (FOMO) and self-control variables used in the research model. Meanwhile, the remaining 20.6% were influenced by other factors outside the research model that were not studied, such as learning motivation, time management, academic environment, social support, psychological condition, and other factors that have the potential to affect students' academic concentration. This high value of determination coefficient indicates that the research model has a good ability to explain the variation in academic concentration based on the two independent variables used.

In addition, the Adjusted R Square value was obtained at 0.789 or 78.9%. The Adjusted R Square value is used to provide a more accurate estimate of the model's ability to explain dependent variables because it has been adjusted to the number of independent variables and the size of the research sample. The very small difference between the R Square value (0.794) and the Adjusted R Square (0.789) shows that the regression model used is quite stable and has a good match rate. This indicates that the variables of FOMO and self-control make a significant contribution in explaining students' academic concentration, and shows that the research model did not experience a significant decrease in predictive ability after adjustments. Overall, these results show that although FOMO does not have a partially significant effect, the variables still contribute to the model simultaneously. However, self-control is the most dominant factor in influencing students' academic concentration.

### Conclusion

Based on the results of research and discussion on the influence of FOMO and Self-Control on Academic Concentration, the following conclusions can be drawn:

1. The FOMO variable (X1) had no significant effect on Academic Concentration (Y). This is evidenced by a significance value of  $0.108 > 0.05$ , so that the first hypothesis (H1) is rejected. Thus, the level of FOMO that respondents have does not directly affect the Academic Concentration.
2. The Self-Control Variable (X2) had a positive and significant effect on Academic Concentration (Y). This is shown by a significance value of  $0.000 < 0.05$  with a regression coefficient of positive value of 0.764, so that the second hypothesis (H2) is accepted. This means that the higher the Self-Control, the higher the Academic Concentration.
3. The variables FOMO (X1) and Self-Control (X2) simultaneously had a significant effect on Academic Concentration (Y). This is evidenced by the calculated F-value of 169.524 with a significance level of  $0.000 < 0.05$ , so that the third hypothesis (H3) is accepted. Thus, the two independent variables were able to explain the variation in Academic Concentration.

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