

PEER INFLUENCE AND MOOD AS PREDICTORS OF ACADEMIC PERFORMANCE IN HIGH SCHOOL STUDENTS

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Abstract

Student academic performance is not only determined by cognitive abilities, but also influenced by social and emotional factors. One such factor is the influence of peers and the mood experienced by students during the learning process. This study aims to determine the influence of peer influence and mood on academic performance. The study uses a quantitative approach with a correlational method. The sample consisted of 258 students selected through simple random sampling from a population of 719 students. The instruments used were the peer influence scale, mood scale, and academic performance scale, which were developed based on theoretical indicators and validated through expert judgment. The reliability of the instruments was tested using Cronbach's Alpha coefficient, with results of 0.887 for peer influence, 0.927 for mood, and 0.890 for academic performance, indicating high reliability. The data analysis techniques used were multiple linear regression, t-test, and F-test. The research results showed that peer influence had a positive and significant effect on academic performance, while mood had a negative and significant effect. Simultaneously, both variables contributed 54% to academic performance. Thus, it can be concluded that the positive influence of peers contributes to improving students' academic performance, while negative moods have the potential to decrease academic performance.

Keywords: : peer influence, mood, academic performance, high school students

Introduction

Adolescence is a phase of development characterized by physical, emotional, and social changes, one of which is marked by the increasing influence of peers in daily life. Peer influence is a social process that arises through interaction with peer groups of similar age, interests, and backgrounds, and plays an important role in shaping the attitudes, behaviors, and values of adolescents (Müller et al., 2021; Rapee et al., 2019). At this stage, adolescents tend to be driven to increase their popularity so that they are more easily imitated and influenced by the behavior that prevails in their environment (Veenstra & Laninga-Wijnen, 2022). This makes peers a source of social acceptance as well as a place for the process of identity formation, where adolescents tend to adjust their behavior to gain recognition, popularity, and avoid social rejection (Sorjonen et al., 2023). In addition, peers also become a source of knowledge and a place to obtain feedback regarding individual abilities, which then influences how adolescents assess and evaluate themselves within the group (Ruaidah, 2023).

Peer influence can be positive or negative, depending on the quality of the relationship formed. In the context of education, a positive peer environment can encourage improved academic achievement through motivation to excel, a spirit of collaboration, and role models from high-achieving peers (Molleman & Bos, 2021).

Conversely, interaction with peers who engage in deviant behavior, such as substance abuse, increases the risk of adolescents doing the same, which ultimately lowers academic performance and productivity (Homel et al., 2020; Bhujbal & Verma, 2024). This situation shows that social acceptance is often prioritized over guidance from family or school, encouraging students to neglect their academic responsibilities.

In addition to social factors, internal aspects such as mood also play an important role in the learning process (Naskar, 2024). Mood is a persistent affective state, different from emotions which are more short-lived and intense, and affects an individual's cognitive performance (Meier-Augenstein, 2010; Peng et al., 2023). Several studies show that a positive mood increases attention span, memory efficiency, and learning motivation, thereby contributing to higher academic achievement and more optimal learning outcomes (Brand et al., 2007; Scrimin et al., 2014; Zhang, 2022). Conversely, negative mood tends to increase cognitive workload, characterized by mental fatigue, decreased focus, and loss of learning motivation (Naranowicz, 2022).

The success of the learning process is not only determined by the smooth running of teaching and learning activities, but is also reflected in the achievements of students. One of the main indicators is academic performance, which includes the individual's ability to master subject matter, think critically, solve problems, and develop their full potential during the educational process (DuPaul et al., 1991; García-Gil et al., 2022; Uzma et al., 2024). Good academic achievement not only demonstrates understanding of the material, but also determines students' readiness to continue their education to a higher level and face the challenges of the working world (Wu et al., 2024). Various studies show that academic performance is influenced by various factors, ranging from individual characteristics, socioeconomic conditions, family and school support, to psychosocial factors such as learning motivation, student engagement, mood, and peer influence (Felipe et al., 2019; Hanaysha et al., 2023; Liu, 2023; Mehta, 2022).

Among these psychosocial factors, peer influence and mood occupy an important position because both are directly related to social dynamics and the emotional state of adolescents. Peer influence contributes through social interaction and the formation of academic identity, where adolescents tend to imitate the learning behaviors of peers who are considered successful (Palacios & Berger, 2022). Meanwhile, a positive mood has been shown to improve cognitive capacity, attention span, and learning motivation, thereby having a direct impact on more optimal academic achievement (Aziz & Batool, 2022). Although previous studies have highlighted the influence of peer influence and mood on academic performance, most studies have been conducted separately and in foreign contexts.

Based on these research gaps, this study presents a novelty by analyzing the simultaneous influence of peer influence and mood on students' academic performance, thereby providing a more comprehensive and contextually relevant understanding. This study is based on the hypothesis that peer influence has a significant effect on academic performance, mood has a significant effect on academic performance, and both variables simultaneously influence academic performance.

To test this hypothesis, this study focuses on three main variables, namely peer influence and mood as independent variables, and academic performance as a dependent variable. The method used is a quantitative approach conducted on high school students. The research instrument is a standardized questionnaire, and data analysis is performed using multiple regression techniques. Thus, this study is expected to provide a more comprehensive empirical contribution regarding the influence of peer influence and mood on the academic performance of adolescents in Indonesia.

Method

This study uses a quantitative approach, which aims to obtain a systematic, measurable, and objective description of the phenomenon being studied, as well as to test hypotheses formulated based on existing theory (Creswell, 2019). According to Sugiyono (2023), quantitative research is a scientific procedure used systematically to obtain data that can be analyzed to achieve specific objectives. The research method used is the correlational method, which is research that aims to measure and understand the level of relationship between two or more variables as a basis for theory development and decision making (Berlianti et al., 2024). The population in this study consisted of 719 students in grades X and XI, with a sample of 258 students selected using simple random sampling.

The research instruments used consisted of three scales, namely the peer influence scale, the mood scale, and the academic performance scale. The peer influence scale was developed based on three dimensions. The first dimension, negative indirect association, with indicators of exposure to deviant behavior of peers, interest or tendency toward deviant behavior due to social environmental influences, and perception of negative group norms; an example statement is "I am easily influenced by my friends to not do my schoolwork." The second dimension is positive indirect association, with indicators of perception of the social value of positive peer behavior, internal motivation to imitate prosocial behavior, and recognition of the positive influence of peers; an example statement is "I become more enthusiastic about studying when I see my friends' efforts." Third, positive direct pressure, with indicators of direct invitations to engage in positive behavior, frequency of experiencing positive social pressure, and individual responses to peer invitations; an example statement is "I follow my friends' invitations to study together before exams."

The mood scale is based on four dimensions. The first dimension is positive energy, with indicators such as being active in carrying out activities, being energetic when doing activities, being enthusiastic about tasks or work, and being excited about doing activities; an example statement is "I carry out my daily activities with high enthusiasm." The second dimension is tiredness, with indicators such as feeling bored when carrying out activities, experiencing boredom with daily tasks, feeling physically exhausted when carrying out daily activities, and being lazy or reluctant to do activities; an example statement is "I feel that schoolwork is too burdensome for me." Third, negative activation, with indicators such as feeling fear when facing situations, feeling anger when responding to problems, feeling anxiety that interferes with daily activities, and feeling nervous when carrying out tasks; an example statement is "I often feel anxious if I don't understand the lesson material." Fourth, relaxation, with indicators such as feeling relaxed when carrying out activities, feeling calm when facing various situations, feeling peace in one's thoughts and feelings, and feeling calm in daily life; an example statement is "I feel peace when I can accept myself as I am."

The academic performance scale consists of three dimensions. The first dimension is academic success, with indicators showing academic skills in class and completing academic tasks independently, such as "I can complete exercises in class without much difficulty." The second dimension is impulse control, with indicators of controlling impulsive behavior during learning activities and students participating orderly in class; an example statement is "I am able to refrain from using gadgets during class." The third dimension is academic productivity, with indicators of completing tasks on time and maintaining concentration during the learning process; an example statement is "I start working on assignments immediately after they are given."

Before being used in data collection, all instruments underwent validity and reliability testing. Construct validity was assessed through expert judgment to ensure that each item measured the appropriate aspect of the variable in question. Scale reliability

was measured using Cronbach's Alpha coefficient, with reliability coefficients of 0.887 for the peer influence variable, 0.927 for the mood variable, and 0.890 for the academic performance variable. These results indicate that all instruments are highly reliable.

The data were analyzed descriptively to determine the trends in the scores for each variable. Furthermore, to test the hypothesis, multiple linear regression analysis was used to see the effect of independent variables on dependent variables. The t-test was used to test the partial effect, the F-test was used to test the simultaneous effect, and the coefficient of determination (R^2) was used to measure the contribution of independent variables in explaining dependent variables. Before performing regression analysis, the data was first tested through prerequisite tests, including normality, linearity, multicollinearity, and heteroscedasticity tests. The test results showed that all assumptions were met, so the data was suitable for further analysis. The entire data processing process was carried out using the SPSS program.

Result and Discussion

This study aims to determine the effect of peer influence and mood on students' academic performance. Descriptive analysis shows that the average peer influence score is 98.49 with a standard deviation of 12.02, and 64% of students are in the moderate category. The mood variable has an average score of 143.53 with a standard deviation of 17.87, with 65% of students in the moderate category. Meanwhile, the average academic performance score was 67.56 with a standard deviation of 9.45, and 67% of students were in the moderate category. These three variables show a relatively even distribution of scores, with a dominant tendency in the moderate category, as shown in the following table.

Table 1 Descriptive Statistics of Variables

Variables	Mean	Standard Deviation	Category	%
Peer Influence	98.49	12.02	Currently	64
Mood	143,53	17,87	Currently	65
Academic Perf.	67,56	9,45	Currently	67

Then, to determine the effect of peer influence and mood on academic performance, a multiple linear regression analysis was conducted. Based on the analysis results, the following regression equation was obtained:

$$Y = 21.037 + 0.707X_1 - 0.161X_2 + e$$

The equation shows that the constant of 21.037 represents the baseline value of academic performance when peer influence (X_1) and mood (X_2) are zero. The regression coefficient of the peer influence variable of 0.707 indicates that each one-unit increase in peer influence will increase academic performance by 0.707, assuming other variables remain constant. Conversely, the regression coefficient of the mood variable of -0.161 indicates that every one-unit increase in mood actually decreases academic performance by 0.161.

To determine the contribution of each independent variable individually to academic performance, a partial significance test was conducted. The results of this test are presented in the following table.

Table 2 Partial Significance Test Results

Variables	t count	Sig.	t table
Peer Influence	16,020	0,000	1.969
Mood	-5,516	0,000	1.969

The partial significance test shows that peer influence has a significant effect on academic performance (calculated $t = 16.020 > \text{table } t = 1.969$; sig. $0.000 < 0.05$). This means that the greater the positive influence of peers, the higher the academic performance of students. This finding is consistent with the results of research by Javeria Zafar et al. (2025) and Liu (2023), which confirm that positive social relationships support improved academic achievement. Theoretically, these results support the views of Moneva and Legaspino (2020) that individuals tend to imitate the behavior of high-achieving peers, and are in line with DeLay et al. (2016), who emphasize the importance of social support in developing academic achievement. Thus, peer influence can be seen as an important external factor that encourages the formation of adaptive and constructive learning behaviors.

In addition, mood variables were also found to have a significant partial effect on academic performance. The t -value obtained was -5.516 , which was greater in absolute terms than the t -table (1.969), with a significance value of $0.000 (< 0.05)$. These results indicate that mood has a significant effect on academic performance. A negative regression coefficient indicates that the worse a student's mood, the lower their academic performance. Theoretically, a negative mood can hinder the learning process, both cognitively and emotionally. This condition makes it more difficult for students to concentrate, decreases their motivation to learn, and makes them more likely to show emotionally maladaptive responses to academic pressure. These findings are in line with the research by Aziz and Batool (2022), who found that a negative mood has a significant impact on decreasing students' academic performance.

The relationship between mood and academic performance can be explained through cognitive mechanisms. When individuals experience negative moods, their ability to focus, absorb information, and respond to academic challenges becomes limited (Rogelberg, 2007; Smith & Kosslyn, 2014). Naranowicz (2022) also emphasizes that negative moods can increase the brain's workload, reduce clarity of thought, and decrease concentration and motivation to learn.

The magnitude of each variable's contribution to academic performance was analyzed using partial determination coefficients, as shown in the following table.

Table 3 Partial Determination Coefficient

Variables	Partial R ² (%)
Peer Influence	46,24%
Mood	5,48%

The contribution of each variable to academic performance is indicated by the partial R² value, which is 46.24% for peer influence and 5.48% for mood. These results indicate that peer influence contributes much more to academic performance than mood. However, mood cannot be ignored because it plays a role in creating students' psychological readiness to learn. Simultaneously, these two variables are also proven to have a significant effect on academic performance, with a calculated F value of $54.158 > \text{F table } 3.03$ (sig. $0.000 < 0.05$). The results of the coefficient of determination analysis show that peer influence and mood together contribute 54% to the variation in students' academic performance. This means that these two factors play an important role in shaping academic achievement, although the contribution of peer influence is far more dominant than mood.

Overall, the findings of this study indicate that students' academic success is not only determined by cognitive factors, but also influenced by social and emotional aspects. Peer influence as a social factor proved to be more dominant, because interaction with peers can increase motivation, shape learning habits, and provide positive academic role

models. Mood, although its contribution is smaller, still plays an important role because stable emotional conditions support focus, concentration, and enthusiasm for learning. These findings are in line with the views of Hanim (2013) and Pham (2024) that academic performance is the result of a combination of internal and external factors.

Pham (2024) also emphasizes that academic success depends not only on cognitive abilities, but also on students' social skills and emotional capacity. Positive interactions with peers encourage the formation of constructive learning attitudes, increase motivation, and create enthusiasm for learning. On the other hand, a positive mood plays a role in maintaining concentration, focus, and sustained academic motivation. Thus, when social and emotional factors are balanced, students are in a more optimal condition to actively participate in the learning process and achieve higher academic performance. This study is important because it provides empirical evidence that peer influence is more dominant than mood in explaining variations in student academic performance. These findings are not only consistent with previous research, but also enrich our understanding of how social interactions and emotional conditions contribute to academic performance in an educational context. The practical implication of this study is the need for schools to develop strategies to create a positive social environment while providing emotional support for students, so that these two factors can work synergistically to promote optimal academic performance.

However, this study has limitations that should be noted. First, the study only focused on two variables, namely peer influence and mood, so it did not accommodate other factors that also have the potential to influence academic performance, such as intelligence, learning motivation, interest, memory, and the physical condition of students. Second, external factors such as cultural background, spiritual conditions, and sense of security in the learning environment were also not considered. Third, the study was conducted in only one school, so the generalization of the results to a wider population is still limited.

Given these limitations, future research should use a more diverse population in terms of student characteristics and school environment so that the results obtained are more representative. In addition, other variables that theoretically affect academic performance, such as intelligence level, learning motivation, interest in lessons, memory ability, and external factors such as culture, spiritual conditions, and learning climate, can be the focus of development. Thus, future research is expected to provide a more comprehensive understanding of the determinants of student academic performance.

Conclusion

The results of this study indicate that peer influence has a positive and significant effect on academic performance, while mood has a negative and significant effect. Simultaneously, these two variables contribute 54% to the variation in students' academic performance. These findings confirm that academic success is influenced not only by cognitive abilities but also by social and emotional factors.

This study contributes theoretically by reinforcing the view that constructive social interactions and stable emotional conditions are important determinants of academic achievement. From a practical standpoint, these findings imply the need for schools to develop strategies for building positive peer environments while providing emotional support for students. Thus, peer influence and mood can work synergistically to promote more optimal academic achievement.

Author Contributions Statement

The research was conducted by the student author, including the formulation of the problem, data collection, analysis, and manuscript writing. The supervisor provided academic guidance and critical review.

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