The Eastasouth Management and Business
Vol. 4, No. 03, May 2026, pp. 634 – 641
ISSN: 2985-7120, DOI: 10.58812/esmb.v4i03

The Effect of Learning Motivation and Academic Discipline on Student Achievement

Delfia Seriani[1], Tutik Winarsih[2]
[1,2] YAPAN College of Economics, (STIE YAPAN), Surabaya, Indonesia

Article Info

Article history:

Received May, 2026
Revised May, 2026
Accepted May, 2026

Keywords:

Academic Achievement;
Academic Discipline;
Learning Motivation;
Students;
Vocational Education;
Vocational High School

ABSTRACT

This study is motivated by the urgent need to improve the quality of vocational education, particularly in efforts to maximize student academic achievement through internal factors—namely, learning motivation and academic discipline—which still vary significantly within school environments. This research is conducted to analyze the effect of learning motivation and academic discipline on students' academic achievement, assessed both individually and collectively. The method used is a quantitative approach with a causal-associative research design, involving the entire population of 90 students using a saturation sampling technique. Data collection was conducted through questionnaires, interviews, and documentation, and was subsequently analyzed using statistical techniques, including multiple linear regression analysis. The results indicate that learning motivation and academic discipline have a positive and significant influence on academic achievement, both individually and jointly. These findings confirm that enhancing students' motivation and discipline plays a crucial role in fostering optimal academic achievement. Thus, strengthening these two aspects should be a primary focus in learning strategies. The implications of this study provide a foundation for schools and educators in designing more effective strategies to improve the quality of learning and students' academic outcomes.

Corresponding Author:

Name: Delfia Seriani
Institution: YAPAN Surabaya College of Economics, Jl. Gunung Anyar Indah E/ 150-154 and 197-198, Karang Pilang Village, Gunung Anyar District, East Java, Indonesia
Email: delfibawe29@gmail.com

1. INTRODUCTION

Education plays a fundamental role in improving the quality of human resources so that they can adapt to global developments and the demands of the Fourth Industrial Revolution. Within this framework, vocational education through Vocational High Schools (SMK) serves as a vital element in equipping students with practical skills and readiness for the workforce. However, Indonesia still faces significant challenges, as evidenced by data from the Central Statistics Agency (BPS 2024), which reveals that the percentage of SMK graduates working in fields aligned with their specialized competencies stands at only around 44% [1].

This situation indicates the need to improve the quality of the learning process, particularly in non-academic dimensions such as motivation and discipline, so that graduates not only excel academically but also possess strong character and resilience [2].

The key issues identified in the field, particularly at SMK Perdana 1 Surabaya, reveal instability in student motivation and discipline. Although students' overall grades generally exceed the Minimum Competency Criteria (KKM), instances of tardiness and irregularities in assignment submission remain frequent and fluctuate. Furthermore, student participation in academic competitions is relatively low, with only about 10 out of a total of 90 students actively participating. This indicates that academic achievement is not yet fully supported by intrinsic motivation and sufficient consistency in academic behavior.

A number of previous studies have examined various factors influencing learning outcomes. Academic achievement is defined as an evaluation output encompassing the cognitive, affective, and psychomotor domains as indicators of the overall success of the learning process. Research conducted by [3] confirms that discipline is a strong determining factor in improving the academic achievement of vocational students. On the other hand, learning motivation is the driving force that encourages individuals to engage in the learning process, whether through internal (intrinsic) factors such as desire and curiosity, or external (extrinsic) factors such as rewards or social encouragement that influence the continuity of learning activities [4]. However, previous studies, such as those conducted by [5], have primarily focused on public schools, leaving a research gap regarding the context of private schools in urban areas with more diverse student populations.

In response to this issue, the study applies a quantitative methodology to investigate the joint effects of learning motivation and academic discipline on students' academic performance.The primary contribution of this study is the provision of empirical evidence regarding the extent to which these two variables influence learning outcomes in the context of private vocational high schools.

Through an understanding of the relationships among these variables, school administrators are expected to formulate more effective and targeted academic policies and characterbuilding strategies, such as optimizing attendance systems and developing more interactive and participatory teaching methods.

The novelty or innovative value of this study lies in the updated empirical data within the context of implementing the "Merdeka Belajar" policy, which emphasizes independence and individual responsibility. Unlike previous studies conducted before the implementation of the current curriculum, this research describes the dynamics of student motivation and discipline within the framework of modern vocational education [1].

Thus, this study offers a new perspective for both academics and education practitioners regarding the importance of psychological aspects in the learning process to support academic success in the dynamic environment of private schools.

2. LITERATURE REVIEW

2.1 Motivation to Learn

Learning motivation can be understood as an internal force that directs students' actions toward achieving learning goals, as reflected in the intensity, direction, and persistence of their behavior [6]. The presence of motivation plays a crucial role in fostering enthusiasm, increasing participation, and optimizing students' learning efforts [6]. Learning motivation is influenced by various factors, both internal to the individual—such as interests and psychological conditions—and external factors, such as the learning environment, the teacher's role, and resource availability [7]. In addition to , learning motivation can be identified through several indicators, including: [1] the drive to achieve, [2] the need to learn, [3] expectations for the future, [4] rewards received, [5] a supportive learning environment, and [6] interest in learning activities [8].

2.2 Academic Discipline

Academic discipline refers to an individual's attitude of adherence to established rules, reflected in organized

and responsible learning behavior [6]. Students' level of discipline is influenced by internal factors such as physical and psychological conditions, as well as external factors including the environment and the role of educators [9]. The implementation of good academic discipline can support increased regularity in learning, strengthen concentration, foster a sense of responsibility, and have a positive impact on students' academic achievement [10].

Indicators of academic discipline include [1] time management skills, [2] consistency in studying, [3] attention during the learning process, and [4] compliance with applicable rules [6].

2.3 Academic Achievement

Academic achievement is the outcome obtained by students as a form of accomplishment from the learning process, reflecting the level of mastery in cognitive, affective, and psychomotor aspects [2], [6], [11]. The level of academic achievement is influenced by various factors, both internal ones such as intelligence, interest, and motivation, as well as external factors such as the environment and the learning methods used [6], [12]. Academic achievement serves an important function as a measure of learning success, a means of boosting students' selfconfidence, and a basis for educational evaluation [13]. Indicators of academic achievement include: [1] intellectual ability, [2] cognitive strategies, [3] attitudes, [4] verbal information, and [5] skills possessed by students (Darmani, 2017) in [6].

3. METHOD

This study employs a quantitative approach using a causal-associative research design aimed at analyzing the association between learning motivation and academic discipline in influencing students' academic achievement.

The subjects of this study included all 90 students at SMK Perdana 1 Surabaya, who were selected as the sample using a census sampling technique. The research variables comprised learning motivation and academic discipline as independent variables, and academic achievement as the dependent variable. The study was conducted within the school setting, with the timing adjusted to the researcher's data collection schedule.

The instrument used in this study was a questionnaire in the form of a Likert-scale survey, designed based on indicators for each research variable. Data collection was conducted by distributing the questionnaire online via Google Forms, supplemented by interviews to obtain relevant additional information. The present study utilizes primary data collected firsthand from the respondents, as well as secondary data sourced from supporting documents such as books and relevant scientific literature.

The data analysis technique employed is quantitative analysis utilizing statistical methods. The initial stage involved data quality testing through validity and reliability tests, followed by classical assumption tests to ensure the model meets the requirements for analysis. Subsequently, hypothesis testing was conducted using the partial (t) test and the simultaneous (F) test, as well as multiple linear regression analysis to identify the magnitude of the influence of independent variables on the dependent variable , both partially and simultaneously.

4. RESULTS AND DISCUSSION

3.1 Respondent Characteristics

Most of the 90 respondents were aged 17–18 years, with 28 individuals (31.1%) in each age group, totaling 62.2%, indicating a predominance of late adolescents with a higher level of academic readiness. Meanwhile, there were 15 respondents aged 16 (16.7%), 11 aged 19 (12.2%), and 7 aged 15 (7.8%). The age group of 21 was the smallest, with only 1 person (1.1%). This age variation reflects differences in individual maturity, although generally, the respondents fell within the age range appropriate for vocational high school (SMK).

Respondents were from grades 10, 11, and 12, with the majority from

grade 12 (39 students, 43.3%), followed by grade 10 (32 students, 35.6%), and grade 11 (19 students, 21.1%). These differences in numbers were likely influenced by technical factors; however, all grade levels were represented, ensuring the data remains sufficiently representative.The distribution of respondents by gender was dominance, making the data more objective balanced, with 45 males and 45 females (50.0%). and representative. This indicates the absence of gender.

Table 1. Distribution of Respondents

Category	Subcategory	Number (people)	Percentage (%)
Age Range	15 years	7	7.8%
	16 years	15	16.7%
	17 years	28	31.1%
	18 years old	28	31.1%
	19 years	11	12.2%
	21 years	1	1.1%
Gender	Female	45	50%
	Men	45	50%
Class	10th	32	35.6%
	X1	19	21.1%
	X11	39	43.3%
Total		90	100%

3.2 Validity Test

If the calculated r > table r or Sig. < 0.05, then the statement item is valid. If the calculated r < table r or Sig. > 0.05, then the statement item is invalid.

Regarding the validity test results, it can be concluded that all statement items for the variables Learning Motivation (X1), Academic Discipline (X2), and Student Achievement (Y) showed a calculated r value greater than the table r value of 0.207. This indicates that every statement item in this research instrument has met the validity criteria. Thus, all statement items used in the questionnaire are deemed capable of accurately representing and measuring each research variable. Therefore, this research instrument is suitable for use in the subsequent analysis stages.

3.3 Reliability Test

Reliability testing in this study used Cronbach's Alpha, with a criterion of a value > 0.70 indicating reliability. The results indicate that all variables met this criterion: Learning Motivation (0.888), Academic Discipline (0.841), and Student Achievement (0.888). This indicates that each variable exhibits high internal consistency, thereby deeming the research instrument reliable and suitable for use.

3.4 Normality Test

A dataset is regarded as normally distributed when the significance level exceeds 0.05, whereas it is classified as non-normal if the significance value falls below 0.05. Based on the

One-Sample Kolmogorov-Smirnov normality test, the Asymp. Sig. (2-tailed) value obtained was 0.200, which is greater than 0.05. This indicates that the residual data are normally distributed, so the normality assumption is met and the regression analysis can proceed.

4.5 Multicollinearity Test

If the tolerance value is > 0.10 or the VIF value is < 10, the data passes the multicollinearity test. Based on the test results, the variables Learning Motivation (X1) and Academic Discipline (X2) have tolerance values of 0.456 and VIF values of 2.192, respectively. These values indicate that tolerance > 0.10 and VIF < 10, so it can be concluded that there are no signs of multicollinearity in the research model.

4.6 Heteroscedasticity Test

If the Sig. value is > 0.05, the model passes the heteroscedasticity test; if

the Sig. value is < 0.05, it fails. Based on the test results, the Learning Motivation (X1) variable has a Sig. value of 0.155 and the Academic Discipline (X2) variable has a value of 0.820. Both values are greater than 0.05, so it can be concluded that the research model passes the heteroscedasticity test or that there is no evidence of heteroscedasticity.

4.7 Partial Hypothesis Testing (T-Test)

The partial effects of the independent variables on the dependent variable are as follows:

The calculated t-value for the learning motivation variable (X1) is 3.368 > the critical t-value of 1.987, and the significance level (sig) of 0.001 < 0.05. Therefore, the level of learning motivation (X1) has a significant partial effect on student achievement (Y).

The calculated t-value for the Academic Discipline variable (X2) is 5.749 > the critical t-value of 1.987, and the significance level (sig) of 0.001 < 0.05. Therefore, Academic Discipline has a significant effect on student achievement.

4.8 Simultaneous Hypothesis Test (F-Test)

If the significance level is < 0.05 and the calculated F value is> the tableF value,then X1 and X2 simultaneously have a significant effect on Y. And if the significance level is > 0.05 and the calculatedF value is< the tableF value,then X1 and X2 simultaneously do not have a significant effect on Y.

Based on the results of the F-test, the calculated F-value is 79.947, which is greater than the table F-value of 3.10, and the significance value is 0.001, which is less than 0.05. These results indicate that the constructed regression model is statistically significant. Thus, it can be concluded that the variables of learning motivation (X1) and academic discipline (X2) simultaneously have a significant effect on student achievement (Y).

4.9 Multiple Linear Regression Analysis Test

Multiple regression equation formula**:** $Y = \alpha + \beta 1X1 + \beta 2X2$ [14]

$$Y = 5.387 + 0.263\ X1 + 0.752\ X2$$

Based on the regression analysis results, the multiple regression equation can be described as follows:

1. The coefficient (α) has a positive value of 5.387. A positive value indicates a direct relationship between the independent variables and the dependent variable. This suggests that when all independent variables—namely learning motivation (X1) and academic discipline (X2) are held constant at 0 percent, the resulting value of academic achievement is 5.387.
2. The regression coefficient for the learning motivation variable (X1) is 0.263. This value indicates a direct relationship between the learning motivation variable (X1) and student academic achievement (Y). This means that if the learning motivation variable (X1) increases by 1%, the student academic achievement variable will also increase by 0.1, assuming that the other variables remain constant.
3. The regression coefficient for the academic discipline variable (X2) is 0.752. This value indicates a direct positive relationship between the academic discipline variable (X2) and academic achievement (Y). This means that if the academic discipline variable (X2) increases by 1%, the learning achievement variable will also increase by 0.752, assuming all other variables remain constant.

4.5 Results of the Coefficient of Determination Test

The formula for the coefficient of determination is as follows:

$R^2 = r^2 \times 100\%$ [14]

Regarding the results of the coefficient of determination test, an R-Square value of 0.648 (64.8%) was obtained. This value indicates that the variables Learning Motivation (X1) and Academic Discipline (X2) together account for 64.8% of the variation in

Student Achievement (Y). The remaining 35.2% is influenced by other factors outside the variables studied in this research.

4.10 The Effect of Learning Motivation on Student Academic Achievement

The results of the partial test (t-test) show that the learning motivation variable (X1) has a calculated t-value of 3.368, which is greater than the critical t-value of 1.987, and a significance level of 0.001, which is less than 0.05. This indicates that learning motivation has a positive and significant effect on student achievement.

These findings suggest that an increase in learning motivation will be followed by an improvement in student achievement. Learning motivation acts as an internal factor that encourages students to be more active and earnest in the learning process, thereby leading to more optimal learning outcomes.

4.11 The Effect of Academic Discipline on Student Achievement

Based on the results of the partial test (ttest), the academic discipline variable (X2) has a calculated t-value of 5.749, which is greater than the critical t-value of 1.987, with a significance level of less than 0.05. This indicates that academic discipline has a positive and significant effect on student achievement.

These results indicate that the higher the level of students' academic discipline— such as adherence to rules, punctuality, and consistency in studying—the higher the academic achievement they can attain. Thus, academic discipline is a key factor in supporting students' learning success.

4.12 The Combined Impact of Learning Motivation and Academic Discipline on Students' Academic Achievement

The results of the simultaneous test (F-test) show that the calculated F-value of 79.947 is greater than the critical F-value of 3.10, with a significance level of less than 0.05. This indicates that learning motivation and academic discipline together have a significant effect on student achievement.

This suggests that these two variables play complementary roles in improving student achievement. Learning motivation functions as an internal driver, while academic discipline plays a role in directing learning behavior in a regular and consistent manner.

5. CONCLUSION

Based on the results of data analysis and discussion regarding the influence of learning motivation and academic discipline on student academic achievement at SMK Perdana 1 Surabaya, the following conclusions can be drawn:

Learning motivation has an influence on students' academic achievement.

This indicates that a high level of learning motivation tends to be accompanied by improved academic achievement. Students with strong learning motivation are generally more active in the learning process, demonstrate greater perseverance, and make maximum effort to achieve optimal learning outcomes. Academic discipline influences students' academic achievement. The implementation of good academic discipline, such as adherence to rules, punctuality, and consistency in learning activities, has been proven to contribute to improved academic achievement. Students with high levels of discipline tend to exhibit systematic and consistent learning patterns. Learning motivation and academic discipline simultaneously influence students' academic achievement.

These two variables play complementary roles in influencing academic achievement. Learning motivation functions as an internal driving factor, while academic discipline acts as a regulator of learning behavior. The synergy between the two makes a significant contribution to improving students' academic achievement. Accordingly, it may be inferred that both learning motivation and academic discipline constitute essential determinants in enhancing students' academic achievement, particularly at the vocational secondary education level.

Based on the results of the research conducted, the author offers several recommendations. For schools, it is hoped that they can optimize student character development programs, particularly in enhancing learning motivation and academic discipline, as well as creating a conducive learning environment with adequate facilities. For teachers, it is hoped that they can develop varied, innovative, and interactive teaching methods to boost students' learning motivation, and instill the value of academic discipline through setting a good example and fostering habits in daily learning activities. Students are advised to strengthen their awareness regarding the significance of learning motivation and academic discipline in attaining academic success by engaging more actively in the learning process, managing their time efficiently, and complying with established school regulations. Subsequently, prospective researchers are advised to investigate additional variables that may affect academic achievement, such as the learning environment, teaching methods, and psychological factors, as well as to expand the scope and levels of research to ensure more comprehensive results.

ACKNOWLEDGMENTS

The author extends the highest appreciation and gratitude to all parties who have contributed, both directly and indirectly, to the process of compiling this research. In particular, appreciation is directed toward the staff of Surabaya's First Vocational High School, including the principal, teachers, and all students who were willing to serve as respondents and actively participated in facilitating the data collection process.

Furthermore, the author would like to thank the academic advisor for all the guidance, direction, and constructive suggestions provided throughout the research process. Thanks to this support, the author was able to complete this research successfully and in accordance with the established guidelines.

In addition, the author would like to express gratitude to family and friends who have consistently provided moral support, prayers, and motivation. The author also extends appreciation to FC Barcelona and Lionel Messi, who have indirectly served as a source of inspiration through the dedication and work ethic they have demonstrated. This support played a crucial role in helping the author complete this research successfully. The author hopes that the results of this research will be beneficial for the advancement of science and for those who need it.

REFERENCES

[1] L. Vandoorne, S. Mashabi, and M. Prastiwi, "Illustration of unemployment, job loss, and unemployment rates," 2024, *Kompas.com*. [Online]. Available: https://www.kompas.com/

[2] L. Susanti, *Academic and Non-Academic Achievement: Theory and Implementation*. Central Java: LITNUS Publisher, 2019.

[3] K. Sadiyah, A. Setiawan, D. H. Siswanto, and Fitriyani, "Self-Efficacy, Learning Styles, and Learning Discipline as Predictors of Mathematics Achievement among Vocational School Students," *J. Ilm. Multidisiplin Ilmu*, vol. 2, no. 3, pp. 138–148, 2025, doi: 10.69714/40sjf608.

[4] Z. Zhou and Y. Zhang, "Intrinsic and Extrinsic Motivation in Distance Education: A Self-Determination Perspective," *Am. J. Distance Educ.*, vol. 38, no. 1, pp. 51–64, 2024, doi: 10.1080/08923647.2023.2177032.

[5] L. Lomu and S. A. Widodo, "Pengaruh Motivasi Belajar dan Disiplin Belajar terhadap Prestasi Belajar Matematika Siswa," in *Prosiding Seminar Nasional Pendidikan Matematika Etnomatnesia*, 2018, pp. 745–751. [Online]. Available: https://core.ac.uk/outputs/230384602/

[6] N. Utami, "The Effect of Discipline and Motivation on the Academic Achievement of 2019 Cohort Students in the Faculty of Economics and Business at Muhammadiyah University of Palopo," Muhammadiyah University of Palopo Repository, 2023. [Online]. Available: http://repository.umpalopo.ac.id/id/eprint/3664

[7] N. Mayasari and J. Alimuddin, *Strategies to Improve Student Learning Motivation*. CV Rizquna, 2023.

[8] T. Alawiyah and U. Sulistiyo, "The Influence of Student Motivation on Student Achievement in the English Subject at SMP N 12 Muaro Jambi," *Indones. J. Lang. Teach. Educ.*, vol. 2, no. 2, pp. 145–156, 2018, [Online]. Available: https://repository.unja.ac.id/6513/

[9] M. M. Alam and N. Fitriatin, "Factors Affecting Student Discipline: A Case Study in Junior High Schools, Indonesia," *J. Asian Islam. Educ. Manag.*, vol. 2, no. 1, pp. 11–18, 2024, doi: 10.53889/jaiem.v2i1.543.

[10] M. Putra and T. Tambun, "The Influence of Character Education and Study Discipline on Social Studies Academic Achievement of Eighth-Grade Students at SMP Negeri 6 Pematang Siantar in the 2023/2024 Academic Year," *J. Sains Student Res.*, vol. 1, no. 2, pp. 688–695, 2024, [Online]. Available: https://ejurnal.kampusakademik.co.id/index.php/jssr/article/view/277

[11] R. K. D. Vina, A. Rahman, and Yuhastina, "Academic Achievement of Elementary School Students in Dukuh Nglawu, Sukoharjo Regency, During Limited Learning in the Pandemic Period as Viewed from Parental Attention and Learning Independence," *J. Pendidik. dan Stud. Islam*, vol. 5, no. 2, pp. 170–200, 2022, [Online]. Available: https://jurnal.stit-al-ittihadiyahlabura.ac.id/index.php/alfatih/article/view/207

[12] M. Syah, *Educational Psychology with a New Approach*. Bandung: PT Remaja Rosdakarya, 2019.

[13] B. Fitria, M. Yahya, and H. Nur, "The Impact of a Conducive Learning Environment on Learning Motivation," in *Advances in Social Science, Education and Humanities Research*, vol. 762, Atlantis Press, 2023, pp. 199–206. doi: 10.2991/978-2-38476-084-8_27.

[14] S. H. Sahir, *Research Methodology*. Penerbit KBM Indonesia, 2022.

AUTHOR BIOGRAPHY

Delfia Seriani I am an academic pursuing higher education in the Management Program at the YAPAN School of Economics (STIE) in Surabaya. My undergraduate studies span four years, beginning in 2022 and scheduled to conclude in 2026. During my studies in Surabaya, I have taken various core courses focused on human resource management. My primary area of expertise is Human Resource Management.delfibawe29@gmail.com