

THE IMPACT OF LEARNING DISCIPLINE AND LEARNING STYLES ON ACADEMIC ACHIEVEMENT

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ABSTRACT

This study was designed to investigate how learning discipline and learning styles function as predictors of academic achievement among vocational high school students in Indonesia. Employing a quantitative approach, the research involved 105 respondents selected through stratified probability sampling. Data were gathered through structured questionnaires and supporting documentation. All statistical computations were performed using SPSS 29. Learning discipline emerged as a strong predictor ($p = 0.000$) with a contribution of 32.1%, while learning style also showed a significant effect ($p = 0.002$) with a contribution of 16.4%. These results suggest that both variables partially affect student achievement. Simultaneously, the ANOVA test yielded p -value of 0.000 with a combined contribution of 38.3%, indicating that learning discipline and learning styles together exert a substantial influence on the academic achievement of Grade XI and XII Office Management students in the Human Resource Management subject at SMK Negeri 46 Jakarta. These insights underscore the need for schools to foster structured learning habits and accommodate diverse learning preferences to optimize student achievement.

Keywords: Learning discipline, Learning styles, Academic achievement

ABSTRAK

Penelitian dirancang guna menganalisis bagaimana disiplin belajar serta gaya belajar berfungsi sebagai prediktor terhadap pencapaian hasil belajar peserta didik sekolah menengah kejuruan di Indonesia. Kajian ini mengadopsi pendekatan kuantitatif dan melibatkan 105 responden melalui teknik stratified probability sampling. Data diperoleh melalui instrumen angket serta dokumentasi pendukung. Seluruh perhitungan statistik dilakukan menggunakan SPSS 29. Disiplin belajar sebagai prediktor kuat ($p = 0,000$) dengan kontribusi sebesar 32,1%, sementara gaya belajar membuktikan signifikan ($p = 0,002$) dengan kontribusi sebesar 16,4%. Dengan demikian, kedua variabel tersebut memiliki dampak parsial terhadap hasil belajar. Secara bersamaan, hasil uji ANOVA mengindikasikan nilai p 0,000 dengan sumbangsih sebesar 38,3%, menandakan bahwa disiplin belajar dan gaya belajar secara simultan memberikan pengaruh nyata terhadap hasil siswa pada mata pelajaran Pengelolaan Sumber Daya Manusia kelas XI dan XII Manajemen Perkantoran SMK Negeri 46 Jakarta. Temuan menekankan pentingnya sekolah menumbuhkan kebiasaan belajar terstruktur dan mengakomodasi preferensi gaya belajar beragam guna mengoptimalkan hasil belajar siswa.

Kata kunci: Disiplin belajar, Gaya belajar, Hasil belajar

INTRODUCTION

Education serves as a cornerstone for cultivating high-quality human resources capable of advancing national development goals. It is a critical avenue for shaping individuals who can contribute meaningfully to societal progress. For students to evolve into individuals capable of impactful achievements, they must demonstrate strong academic performance. Educational success is marked by sustained participation in structured learning activities over time and the attainment of standards set forth by educational institutions (Dewi & Kurniawati, 2023). Within vocational education, schools aim to foster strong learning achievement among students, as these results serve as an indicator of institutional effectiveness in delivering knowledge and skills.

Global performance comparisons underscore the challenges faced by Indonesia. According to the 2022 Programme for International Student Assessment (PISA) conducted by the OECD, Indonesian learners perform below the OECD average, with only a minority attaining minimum proficiency and roughly one-quarter reporting difficulty in grasping much of the curriculum content (OECD, 2023a). Disparities in educational outcomes are partly linked to contrasting pedagogical traditions. High-achieving systems such as those in Singapore, Japan, Korea, and Finland prioritize interactive, concept-driven learning that emphasizes open inquiry and real-world application, whereas Indonesian classrooms frequently remain lecture-focused and reliant on rote memorization (OECD, 2023b). A comparative study by Rachmatullah & Ha (2019) further reveals that Indonesian high school students often employ a hybrid of memorization and conceptual strategies inconsistently, while Korean counterparts adopt highly structured, concept-centered study patterns.

The research seeks to elucidate how these internal factors interact to shape learning achievement in a domain that demands both conceptual mastery and practical skill application. Student academic achievement are influenced by an interplay of internal and external factors (Wildan et al., 2023). Meanwhile, Kolb's framework conceptualizes learning styles as individual preferences in processing information which include Concrete Experience, Reflective Observation, Abstract Conceptualization, and Active Experimentation.

Recent empirical studies in Indonesia by Halim et al. (2021); Hafizah & Siregar (2025); Ekawati & Putra (2022) corroborate the positive and statistically meaningful impact of learning discipline as well as learning styles within student achievement across diverse educational settings. Learning achievement represent the end results of a sustained instructional process, demonstrating whether students have internalized knowledge, skills, attitudes, and behaviors aligned with curricular expectations. Supporting this view, Ekawati & Putra (2022); Permatasari & Sari (2022) emphasize the strong positive influence between student discipline and academic achievement, underlining its critical role in academic success. Findings reported by various researchers, including Halim et al. (2021); Mawarni et al. (2020) similarly highlight the role of learning styles in enabling students to meet learning goals effectively by leveraging their individual cognitive preferences.

However, although prior studies have firmly established the importance of learning discipline and learning styles, most have analyzed these variables in isolation, failing to account for their combined influence. This gap underscores the need for research that models the interaction of these internal factors within vocational education contexts where real-world demands are paramount. Preliminary observations reveal that many students lack awareness of their optimal learning styles, often procrastinate on assignments, and struggle to maintain high academic standards. While a portion achieves satisfactory marks, others score below the minimum competency level in Human Resource Management courses.

Recent scholarship encourages integrated approaches that examine how multiple internal factors simultaneously shape learning achievement, particularly in vocational education. There is increasing recognition that success in vocational learning environments

demands a balance of disciplined behaviors and adaptive, personalized learning strategies. Yet few studies have explicitly modeled the simultaneous effects associated with learning discipline as well as learning styles in the context of student achievement within the Office Management program, especially in Human Resource Management subjects that require both theoretical understanding and practical proficiency.

The novelty of the research lies in its effort to model these two independent variables together within the vocational education context, offering richer insights into how structured learning habits and individualized learning strategies work in tandem to improve achievement. The contribution of this study is to provide an empirical foundation for educators, curriculum developers, and policymakers to design learning interventions that simultaneously promote disciplined study practices and facilitate students' preferred learning styles, enhancing learners' readiness to address the evolving expectations of the current professional environment.

LITERATURE REVIEW

Academic Achievement

Academic achievement is a tangible representation of an individual's accomplishments following an intensive educational process. Maryanti (2022) conceptualized academic achievement as the outcome of persistent effort, manifested in personal attainment, creative production, and a sense of internal satisfaction. Sarkol et al. (2023) highlighted that learning outcome is often expressed through symbols, numerical values, or verbal descriptors that signify progress over a defined instructional period. Hence, this difference in perspective suggests that while some researchers highlight the process and intrinsic value of achievement, others focus on the form in which it is reported. Beyond such definitional contrasts, both perspectives agree that academic achievement extend beyond numerical evaluation, reflecting cognitive impressions shaped by active engagement with the learning environment. This alignment underscores the multidimensional nature of learning results, which involve not only knowledge acquisition but also the application of understanding and skills within meaningful contexts.

Attaining optimal academic achievement requires students to be aware of the multifaceted factors influencing their academic efforts. Broadly, these factors are classified into internal and external domains. According to Jadidah (2024), internal factors include intellectual capacity, aptitude, learning discipline, learning styles, interest, motivation, and cognitive competence. Bloom delineate academic achievement can be shaped by a pair of classifications, encompassing factors within those intrinsic to the learner and those emerging from contextual conditions, and is evaluated across three fundamental indicators especially cognitive, affective, and psychomotor (Yulianto, 2021).

Learning Discipline

Learning discipline is recognized as a critical component in shaping students' character and academic behavior. Adison & Suryadi (2022) emphasizes that a disciplined attitude positively influences students' development, particularly in their ability to adapt to the school environment and adjust to educational routines. Discipline as compliance with established norms throughout the learning process, yet it cannot emerge in the absence of clear and structured regulations that orient students' thinking and behavior. According to Handayani & Subakti (2020), learning discipline originates from individual awareness, which subsequently fosters meaningful changes in knowledge, conduct, and attitude. Adherence to school regulations on a consistent basis plays a pivotal role in preventing confusion among learners during instructional activities. In this sense, discipline may be viewed as an embodiment of

self-regulation, manifested in a student’s deliberate and sustained alignment with institutional standards in pursuit of personal and academic growth.

As an integral element of teaching and learning activities, discipline serves a functional role in guiding students toward defined academic objectives. Noviandri et al. (2021) identifies two principal goals of discipline in particular, short-term and long-term achievement. Appropriate disciplinary strategies enable students to fulfill responsibilities, realize aspirations, and achieve targeted goals. According to Musbikin (2021), the indicators of learning discipline encompass four core aspects: discipline in complying with school rules, discipline during instructional activities, discipline in task completion, and discipline maintained within the home learning environment. Although these indicators are widely acknowledged, their effectiveness may vary depending on the school context, available resources, and the level of parental involvement, highlighting the need for contextual adaptation in their application.

Learning Styles

Syamsidar (2021) views learning styles as students’ tendencies to modify specific learning techniques as part of their responsibility in selecting strategies that align with their learning needs and classroom demands. In a complementary perspective, Syahra et al. (2020) frame learning styles as relatively stable patterns of cognitive, affective, and psychomotor behavior that enable learners to engage meaningfully with others and respond adaptively to their educational environment. The difference in emphasis suggests that learning styles may be interpreted either as a flexible, situational choice or as a more enduring behavioral pattern. Learning styles as consistent patterns used by students to absorb and internalize academic content, allowing them to retain knowledge, evaluate information critically, and generate effective solutions during problem solving tasks.

David Kolb posits that students’ learning styles are shaped by two primary categories namely internal and external influences. Internally, these encompass physiological conditions and psychological attributes of the individual. Externally, learning styles are affected by factors such as the family environment, school setting, and broader social interactions within the community. In addition, a student’s learning style may also be influenced by personality traits, habitual study patterns, and is subject to change or development over time. Earlier, Kolb (1984) proposed four core dimensions that serve as benchmarks for identifying one’s learning style as a cyclical process involving Concrete Experience, Reflective Observation, Abstract Conceptualization, and Active Experimentation.

Hypothesis

Grounded in the conceptual underpinnings and informed by prior investigations, these hypotheses are articulated:

H1: There is an influence of learning discipline on academic achievement.

H2: There is an influence of learning styles on academic achievement.

H3: There is an influence of learning discipline and learning styles simultaneously on academic achievement.

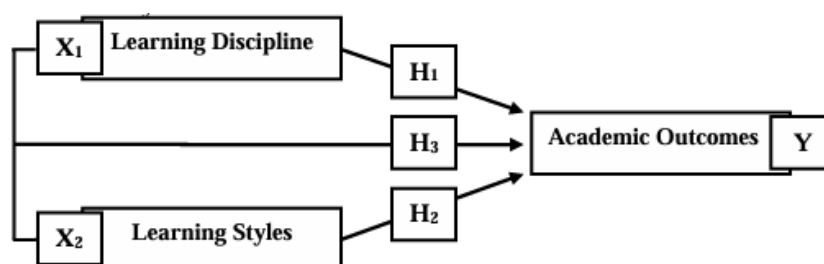


Figure 1. Conceptual Framework

METHOD

A methodology grounded in quantitative principles has been selected to structure this analysis. Investigator-collected data were obtained through the distribution of questionnaires through Google Forms using a Likert scale, while externally sourced data were collected from students' academic achievement in the Human Resource Management subject. This research was conducted at Public Vocational High School (SMK Negeri) 46 Jakarta. Stratified probability sampling was chosen to represent Grade XI and XII Office Management students fairly, considering differences in subject exposure. This method was appropriate to ensure each subgroup was proportionally included, thus enhancing data accuracy and minimizing sampling bias. A total of 105 students participated. Employing this technique is well-matched to the research framework, with the research designed to interrogate the contribution of these variables. The questionnaire included 42 items across three variables. Validity was confirmed by expert review and item-total correlation, and reliability was verified with Cronbach's Alpha ($\alpha > 0.700$). As articulated by Sugiyono (2019), data analysis in quantitative research is performed after all responses or other data sources have been collected. The analytical approach encompassed diagnostic checks, regression modeling, and inferential evaluation, utilizing SPSS software (version 29), research process in this study can be seen in Figure 2.

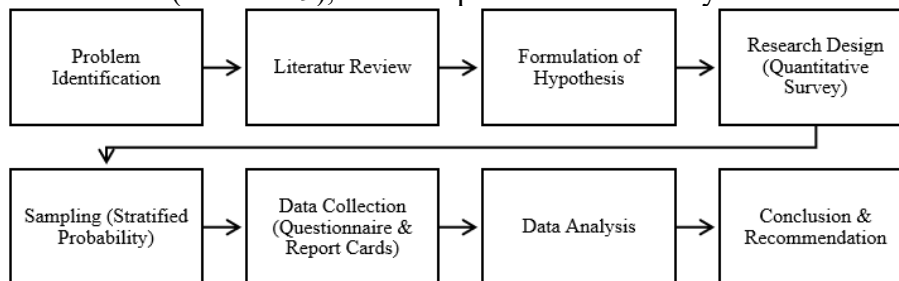


Figure 2. Flowchart of the Research Process from Design to Data Analysis

RESULTS AND DISCUSSION

Multicollinearity Test

Based on Table 1, the multicollinearity diagnostics indicate both of the independent variables exhibit a tolerance value 0.913 alongside Variance Inflation Factor (VIF) score 1.096. This is because the VIF value is much below 10.00 and the tolerance value is higher than the 0.10 threshold. These results show that this regression model does not include multicollinearity.

Table 1. Multicollinearity Test

		Coefficients ^a					Collinearity Statistic	
		Unstandardized Coefficients		Standardized Coefficients		t	Sig.	Tolerance
Model	B	Std. Error	Beta					
1	(Constant)	52.297	4.487		11.655	<.001		
	Learning Discipline	.418	.070	.490	6.013	<.001	.913	1.096
	Learning Styles	.101	.031	.261	3.200	.002	.913	1.096

a. Dependent Variable: Academic Achievement

Heteroscedasticity Test

The heteroscedasticity assessment was performed using the Glejser test, which evaluates whether residual variance remains consistent across values of both independent variables, was used to measure heteroscedasticity. The test yielded significant scores of 0.387 for learning styles and 0.704 for learning discipline. Based on Table 2, the model shows doesn't pose an issue of heteroscedasticity because both values are significantly higher than the conventional 0.05 significance level. Consequently, the residuals meet the homoscedasticity assumption necessary for trustworthy regression analysis by showing consistent variance.

Table 2. Heteroscedasticity Test

		Coefficients ^a				
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	2.207	2.458		.898	.371
	Learning Discipline	.015	.038	.039	.381	.704
	Learning Styles	-.015	.017	-.090	-.868	.387

a. Dependent Variable: Academic Achievement

Normality Test

Normality of the residuals was investigated through the Kolmogorov–Smirnov procedure, with further interpretation aided by the Normal Probability Plot (P-P Plot). Based on Table 3, the test yielded an Asymp. Sig. value of 0.200, which does not suggest any marked irregularity in distribution. This outcome lends support the residuals are normally distributed, thereby fulfilling one of the essential assumptions for linear regression analysis.

Table 3. Normality Test

One-Sample Kolmogorov-Smirnov Test		
Unstandardized Residual		
N		105
Normal Parameters ^{a,b}	Mean	.0000000
	Std. Deviation	2.60239591
Most Extreme Differences	Absolute	.061
	Positive	.061
	Negative	-.058
Test Statistic		.061
Asymp. Sig. (2-tailed) ^c		.200 ^d

a. Test distribution is Normal.
 b. Calculated from data.
 c. Lilliefors Significance Correction.
 d. This is a lower bound of the true significance.

In addition, the P-P Plot illustrates that the distribution of standardized residuals closely aligns with the diagonal line, further reinforcing the result of the Kolmogorov–Smirnov test (Figure 3). Taken together, both the statistical and graphical evidence affirm that the residuals conform to a normal distribution pattern.

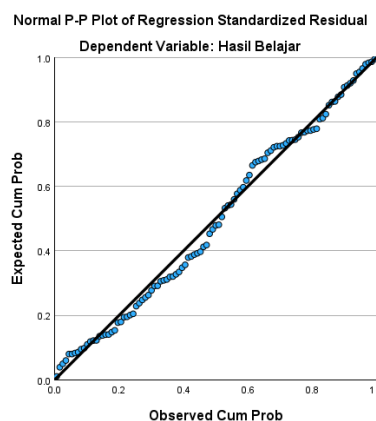


Figure 3. Normal Probability Plot

Linearity Test

The assumption of linearity was evaluated using ANOVA tables for both independent variables. Based on Table 4, for Learning Discipline, the results reveal a Linearity F-value of 43.350 with a p-value 0.000, underscoring the plausibility of a strong linear connection with Academic Achievement. Additionally, the Deviation from Linearity test yielded a p-value of

0.993, which is well above 0.05, This suggests no significant departure from linearity for this variable.

Table 4. Linearity Test Learning Discipline on Academic Achievement

		ANOVA Table					
		Sum of Squares	df	Mean Square	F	Sig.	
Academic Achievement * Learning Discipline	Between Groups	(Combined) 414.651	18	23.036	2.726	.001	
	Linearity Deviation from Linearity	366.331	1	366.331	43.350	.000	
		48.320	17	2.842	.336	.993	
Within Groups		726.740	86	8.450			
Total		1141.390	104				

Similarly, for Learning Styles, Based on Table 5, the ANOVA table shows a Linearity F-value of 19.834 with a p-value marked at 0.000, providing a meaningful linear association with Academic Achievement. The Deviation from Linearity value of 0.571 exceeds 0.05, indicating the absence of significant non-linear patterns. Taken together, these findings affirm that the linearity assumption is satisfied for both independent variables, supporting the appropriateness of employing multiple linear regression in this study.

Table 5. Linearity Test Learning Styles on Academic Achievement

		ANOVA Table					
		Sum of Squares	df	Mean Square	F	Sig.	
Academic Achievement * Learning Styles	Between Groups	(Combined) 470.452	33	14.256	1.509	.075	
	Linearity Deviation from Linearity	187.426	1	187.426	19.834	.000	
		283.026	32	8.845	0.936	.571	
Within Groups		670.939	71	9.450			
Total		1141.390	104				

Multiple Linear Regression

This study uses multiple linear regression to assess the various effects that learning styles and learning discipline may have on academic achievement in order to better understand how both influence them. This method recognises possible overlaps between the two variables while allowing for a more in-depth analysis of their respective contributions. The regression equation derived from the analysis is expressed as follows:

$$Y = 52.297 + 0.418X_1 + 0.101X_2$$

Based on Table 6, the coefficient for Learning Discipline is 0.418 with accompanied by a p-value below 0.001, which can be interpreted as evidence supporting a positive and statistically significant on Academic Achievement. Similarly, Learning Styles yielded a value of 0.101 with a p-value of 0.002, confirming its positive and significant contribution to Academic Achievement. These findings suggest that both independent variables individually exert a meaningful positive influence on students' academic performance. Such results align with prior research emphasizing the role of discipline and personalized learning approaches in enhancing educational achievement (Sugiyono, 2019).

Table 6. Multiple Linear Regression

		Coefficients ^a					
		Unstandardized Coefficients		Standardized Coefficients		t	Sig.
Model		B	Std. Error	Beta			
1	(Constant)	52.297	4.487			11.655	<.001
	Learning Discipline	.418	.070	.490		6.013	<.001
	Learning Styles	.101	.031	.261		3.200	.002

a. Dependent Variable: Academic Achievement

Partial Test

In this analysis, the t-test was employed to evaluate whether each predictor contributes unique explanatory value to academic achievement. Using a two-tailed significance level of 5% and degrees of freedom calculated as $n - k - 1 = 102$, the critical t-value was established at approximately 1.983. Based on Table 7, learning Discipline produced a t-statistic of 6.013, while Learning Styles yielded 3.200; both exceed the threshold, indicating significant partial effects. Corresponding p-values ($p < 0.001$ for Learning Discipline and $p = 0.002$ for Learning Styles) fall well below the 0.05 criterion, further affirming their independent and statistically credible roles. These results substantiate that both learning discipline and learning styles exert distinct, meaningful contributions to enhancing academic achievement.

Table 7. Partial Test

		Coefficients ^a				
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	52.297	4.487		11.655	<.001
	Learning Discipline	.418	.070	.490	6.013	<.001
	Learning Styles	.101	.031	.261	3.200	.002

a. Dependent Variable: Academic Achievement

Simultaneous Test

The F-test was applied to assess whether the predictors, when considered together, account for a meaningful proportion of variance in academic achievement. Using the conventional $\alpha = 0.05$ and degrees of freedom $df_1 = 2$ and $df_2 = 102$, the critical F-value was determined as 3.09. Based on Table 8, the analysis produced an observed F-statistic of 31.646 with a significance level of 0.001, far below the 0.05 threshold. This substantial margin above the critical value confirms that learning discipline and learning styles jointly exert a statistically significant influence on academic achievement.

Table 8. Simultaneous Test

		ANOVA ^a				
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	437.054	2	218.527	31.646	<.001 ^b
	Residual	704.336	102	6.905		
	Total	1141.390	104			

a. Dependent Variable: Academic Achievement

b. Predictors: (Constant), Learning Discipline, Learning Styles

Multiple Correlation Coefficient

The multiple correlation analysis examined the joint association of all predictors with the outcome variable. Basd indicated an R value of 0.619, signifying a strong and positive linkage between learning discipline, learning styles, and academic achievement. This magnitude, classified as robust under standard interpretive guidelines, reflects a consistent directional relationship across the variables.

Table 9. Multiple Correlation Coefficient

Model Summary ^a				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.619 ^b	.383	.371	2.628

a. Dependent Variable: Academic Achievement

b. Predictors: (Constant), Learning Discipline, Learning Styles

Determination Coefficient Test

The coefficient of determination, represented by R^2 , measures the proportion of variance in the dependent variable that can be explained by the independent variables included in the model. Based on the Table 10, the R Square value was found to be 0.383, indicating that approximately 38.3% pertaining to changes in Academic Achievement jointly accounted for through Learning Discipline and Learning Styles. Conversely, the remaining 61.7% of the variance is attributed to other aspects not encompassed by the current regression model.

Table 10. Determination Coefficient Test

Model Summary ^a				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.619 ^b	.383	.371	2.628

a. Dependent Variable: Academic Achievement
b. Predictors: (Constant), Learning Discipline, Learning Styles

Discussion

The Influence of Learning Discipline on Academic Achievement

Research herein explored degree to which students' learning discipline contributes to their academic achievement. The partial application this test yielded a t-statistic around 6.013, surpassing critical threshold estimated at roughly 1.983, accompanied by p-value around 0.000, demonstrating a finding below the 5% benchmark corroborating a significant effect. Learning discipline contributed 32.1%, this factor indicates that a considerable share of achievement differentials may be attributed to the steadiness and quality of students' disciplinary engagement. These results are consistent with prior studies Zurahmah & Isnaniah (2023); Ekawati & Putra (2022); Lestari et al. (2023); Sumanri (2024); Harefa & Lase (2023) all of which affirm the constructive influence of discipline on learning achievement. Students with higher discipline levels tend to achieve better results. This finding aligns with Handayani & Subakti (2020), portrayal of discipline as intentional participation in the learning process, align with Adison & Suryadi (2022) emphasis on adaptation to institutional norms. While Noviandri et al. (2021) identifies its short-term goal of fostering proper behavior and long-term aim of cultivating responsibility. This is evident among Office Management students who manage time effectively and follow school rules, preparing them for future professional demands. Furthermore, academic outcome theory supports these findings, as Jadidah (2024) highlights discipline as an essential internal factor influencing academic success. Therefore, this study confirms H1 there is learning discipline exerts a statistically significant and beneficial role in predicting academic achievement.

The Influence of Learning Styles on Academic Achievement

This study explored the extent to which students' learning styles contribute to their academic achievement. The analysis produced a t-statistic at 3.200, exceeding the threshold approximately 1.983, accompanied by significance measured at roughly 0.002, revealing a noteworthy partial role. Learning styles accounted for 16.4% of the variance in academic achievement. This result aligns with previous findings Halim et al. (2021); Yusuf & Erviana (2022); Ridzal (2022); Mawarni et al. (2020); Anggelina et al. (2023); Salsabila et al. (2023) confirming positive role of learning styles in supporting student achievement. Students are more likely to achieve learning success when they effectively apply their preferred learning methods. Consistent with Syamsidar (2021), learning styles are individual tendencies in processing information. In this study, indicators characterized by phases such as concrete experience, reflective observation, abstract conceptualization, and active experimentation were emphasized. Syahra et al. (2020) further stated that learning styles encompass cognitive, affective, and psychomotor dimensions, which together enhance student comprehension.

Jadidah (2024) considers learning styles an internal factor influencing academic achievement, particularly in practice-oriented subjects like Human Resource Management. Therefore, students who align their learning strategies with their individual styles are more prepared for assessments and real-world application. These findings support H2 there is learning styles exerts a statistically meaningful and beneficial role in predicting academic achievement.

The Influence of Learning Discipline and Learning Styles on Academic Achievement

The correlational metric, estimated at approximately 0.619, suggests a robust linkage among learning discipline, learning styles, and academic achievement. Furthermore, R^2 estimated at approximately 0.383 shows 38.3% of the variance in academic achievement highlights the proportion of variance accounted for by the predictors, with the balance of about 61.7% potentially attributable to dimensions outside this investigation's framework. The F-test further supports this, with an F-statistic of 31.646 exceeding the critical value F-value 3.09 and paired with a p-value around 0.000, well below 0.05, highlighting a simultaneous effect of the explanatory variables on academic achievement. Consistent with these observations, such evidence supports prior research by Hafizah & Siregar (2025); Matussolikhah & Rosy (2021); Hasugian et al. (2022) which similarly reported directionally positive and statistically reliable effects of learning discipline alongside learning styles on academic achievement. As Jadidah (2024) explains, these are critical internal factors that shape students' ability to process information and complete learning tasks. As Syamsidar (2021) note, learning styles reflect individual tendencies in processing and understanding information. When applied appropriately, they facilitate better comprehension of the material. Meanwhile, Adison & Suryadi (2022) highlights that strong learning discipline enables students to consistently follow learning rules. Furthermore, effective discipline and learning styles are essential in mastering complex subjects like Human Resource Management. Thus, Hypothesis 3 (H_3) is accepted, confirming there is learning discipline together with learning styles exerts a statistically meaningful and beneficial role in predicting academic achievement.

CONCLUSION AND RECOMMENDATION

Conclusion

This research was undertaken to explore to what extent learning discipline and learning styles serve as determinants of academic achievement among Grade XI and XII Office Management students at SMK Negeri 46 Jakarta. The findings confirm that both variables act as significant predictors, with learning discipline exerting a comparatively stronger influence than learning styles. These outcomes underscore the pivotal role of consistent and well-structured study routines, as well as the alignment of pedagogical strategies with individual learning preferences, in fostering success within vocational education environments where mastery of theoretical knowledge and applied skills is equally essential. The findings affirm established theoretical viewpoints that position learning discipline and learning styles as essential internal elements shaping academic achievement. From a practical standpoint, the results underscore the importance of cultivating regular and well structured study habits to enhance both cognitive understanding and affective growth. Moreover, tailoring teaching approaches to embrace a range of learning preferences can foster stronger engagement in psychomotor skills. Collectively, these implications offer a strategic foundation for educators and policymakers in crafting curricula and instructional frameworks that effectively address the diverse needs of learners in vocational education.

Limitations and Recommendations

This study was conducted exclusively with Grade XI and XII students enrolled in a single vocational study track, which may restrict the extent to which its conclusions can be

applied in other educational contexts. The reliance on a questionnaire with fixed-response options constrained participants from providing more detailed explanations. Furthermore, the timing of data collection was bound by the school's schedule, which may have reduced the depth and reflectiveness of responses. The analysis also focused solely on two internal variables, leaving out other potential influences that could shape academic achievement. Subsequent inquiries may benefit from involving participants across multiple academic disciplines and institutional contexts, thereby increasing the breadth and applicability of findings. Employing data collection techniques such as open-ended surveys, in-depth interviews, or observational studies could yield more layered and insightful portrayals of student learning behaviors. Further exploration of complementary variables, such as learner motivation, instructional quality, peer relationships, and environmental conditions, would contribute to a more holistic model of the determinants of academic success.

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