

Correlation of Learning Discipline and Extrinsic Motivation with Students' Academic Achievement: A Study in Islamic Higher Education

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ABSTRACT

This study examines the relationships between learning discipline, extrinsic motivation, and students' self-reported academic achievement in an Islamic higher education institution. Situated within the Faculty of Tarbiyah at Institut At-Tanwir Bojonegoro, the study considers how discipline and motivation operate in an educational context that integrates academic development with Islamic values. A quantitative correlational survey design was employed. From a population of 584 students, 85 respondents were selected through simple random sampling. Data were collected using a structured questionnaire consisting of 36 items: 12 items for learning discipline, 12 for extrinsic motivation, and 12 for self-reported academic achievement. Data were analyzed using validity and reliability testing, classical assumption tests, multiple linear regression, t-tests, an F-test, and the coefficient of determination (R^2) with SPSS 27. The results showed significant positive relationships between learning discipline and academic achievement ($t = 4.732$, $p < .05$) and between extrinsic motivation and academic achievement ($t = 5.552$, $p < .05$). The overall regression model was significant ($F = 51.229$, $p < .001$), with the two predictors jointly accounting for 55.5% of the variance in self-reported academic achievement. These findings suggest that disciplined learning practices and supportive external motivation are important correlates of students' perceived academic performance. In Islamic higher education, the findings highlight the relevance of connecting self-regulated learning and institutional support with values such as *istiqāmah*, *amānah*, and *iḥsān*.

Keywords: *Learning Discipline; Extrinsic Motivation; Self-Reported Academic Achievement; Islamic Higher Education; Tarbiyah Students*

INTRODUCTION

Education serves as a fundamental pillar of sustainable national development and the formation of high-quality human resources. Higher education plays a strategic role in developing students' intellectual capacities, professional competencies, and personal development. Within Islamic higher education institutions (Perguruan Tinggi Keagamaan Islam Swasta—PTKIS), this responsibility extends beyond knowledge transmission to the cultivation of Islamic values, character, and responsible learning practices.

Previous research conducted in the context of STAI Attanwir Bojonegoro has demonstrated the importance of examining institutional and instructional dimensions of students' learning experiences. Faizin (2020), through an evaluation of the Arabic language curriculum, highlighted the importance of systematically examining educational programs in relation to their intended learning objectives and implementation. Subsequent research evaluating online learning applications among STAI Attanwir students further demonstrated the relevance of learning environments and educational resources to students' learning experiences (Faizin, 2021). These studies suggest that academic development within Islamic higher education is embedded in an interaction between learners and the instructional and institutional conditions surrounding them.

In Islamic tradition, seeking knowledge (*ṭalab al-'ilm*) occupies an important position. Qur'anic principles emphasize the elevated status of knowledgeable believers, as reflected in QS. Al-Mujādilah: 11. Effective learning, however, also requires order, consistency, and responsibility. Learning discipline therefore represents an important behavioral dimension through which students manage study habits, time, academic responsibilities, and institutional expectations.

Empirical conditions at the Faculty of Tarbiyah, Institut At-Tanwir Bojonegoro, indicate variation in students' learning discipline, including differences in study regularity, punctuality, assignment completion, and time management. Students also encounter various forms of extrinsic motivation, including lecturer recognition, rewards, peer competition, parental support, and institutional reinforcement. These external conditions may help initiate or sustain engagement with academic responsibilities.

Nevertheless, educational environments alone cannot fully explain differences in students' academic achievement. Students within the same institution may demonstrate different patterns of engagement, persistence, and perceived academic performance. Two factors that may help explain these differences are learning discipline and extrinsic motivation. Learning discipline reflects students' capacity to organize and sustain learning behavior, whereas extrinsic motivation concerns external forms of encouragement that can initiate or maintain engagement in academic activities.

Prior studies have documented positive associations between discipline, motivation, and learning outcomes (Mulyawati et al., 2019; Iryanti & Purnomo, 2019; Palangda & Laloan, 2023; Pratama & Kurniawan, 2021; Triwulandari et al., 2025). However, these constructs are often treated primarily as general educational-psychological variables. Less

attention has been given to their relationships within Islamic higher education, where academic expectations coexist with institutional commitments to Islamic values and character formation. Accordingly, this study examines the relationships between learning discipline, extrinsic motivation, and students' self-reported academic achievement at the Faculty of Tarbiyah, Institut At-Tanwir Bojonegoro. Rather than assuming causal effects, the study investigates whether learning discipline and extrinsic motivation are statistically associated with variation in students' perceived academic achievement.

Learning discipline refers to self-regulatory practices that enable learners to control, direct, and maintain consistent study behaviors. It includes punctuality, assignment completion, compliance with academic rules, study regularity, and learning independence. In Islamic educational thought, disciplined learning can be associated with *al-niẓām* (orderliness), *istiḳāmah* (consistency), *al-jidd* (serious effort), and perseverance. Al-Zarnuji in *Ta'lim al-Muta'allim* emphasizes diligence, perseverance, appropriate learning conduct, and careful use of time as important conditions in the pursuit of knowledge. Thus, learning discipline can be understood not merely as compliance with rules but as a sustained disposition toward responsible learning.

Extrinsic motivation refers to engagement encouraged by outcomes or stimuli external to the activity itself, including grades, recognition, rewards, scholarships, social expectations, and avoidance of negative consequences. From a behaviorist perspective, reinforcement can strengthen particular learning behaviors when desirable consequences follow those behaviors (Skinner, 1953). Self-Determination Theory further explains that externally initiated motivation can vary in the degree to which it becomes internalized by learners (Deci & Ryan, 2000).

Extrinsic motivation should also be considered in relation to the learning environment through which students experience instruction. Institutional support, lecturer feedback, learning activities, and instructional arrangements can provide external conditions that encourage students to remain engaged in learning. Within the context of Arabic and Islamic education, Faizin (2020) demonstrated the importance of curriculum evaluation for understanding educational processes, while Faizin (2021) examined students' use of online learning applications at STAI Attanwir Bojonegoro. Akmalia and Faizin (2021) also illustrated the importance of adapting instructional practices through recitation as an alternative method for virtual Nahwu learning. Together, these studies reinforce the view that students' learning cannot be separated from the institutional and instructional conditions in which academic activities occur.

Within Islamic pedagogy, external educational encouragement may also be considered through the concepts of *al-tarḥīb* (encouragement or incentive) and *al-tarhīb* (warning or deterrence). These mechanisms should not be reduced solely to material reward and punishment; they can be understood as pedagogical means of directing learners toward responsible conduct and sustained engagement.

In this study, academic achievement is conceptualized as students' self-reported perception of their academic attainment rather than as official GPA or transcript data. It encompasses perceived mastery of course material, accomplishment of academic tasks, achievement of learning targets, perceived quality of academic performance, and consistency in maintaining satisfactory learning outcomes. This operationalization allows academic achievement to be measured through a multi-item scale, while requiring the findings to be interpreted as perceived or self-reported academic achievement.

Previous empirical studies consistently report positive associations between learning discipline, motivational factors, and educational outcomes (Mulyawati et al., 2019; Iryanti & Purnomo, 2019; Palangda & Laloan, 2023; Pratama & Kurniawan, 2021; Triwulandari et al., 2025). Based on the theoretical and empirical literature, the following hypotheses were proposed:

H1: There is a significant positive relationship between learning discipline and students' self-reported academic achievement.

H2: There is a significant positive relationship between extrinsic motivation and students' self-reported academic achievement.

H3: Learning discipline and extrinsic motivation are simultaneously and significantly associated with students' self-reported academic achievement.

METHOD

This study employed a quantitative correlational survey design to examine the relationships between learning discipline, extrinsic motivation, and students' self-reported academic achievement. The target population comprised 584 active undergraduate students across four study programs at the Faculty of Tarbiyah, Institut At-Tanwir Bojonegoro, during the 2025–2026 academic year. Using Slovin's formula with a 10% margin of error, 85 respondents were selected through simple random sampling.

Data were collected using a structured questionnaire consisting of three scales: learning discipline (X1), extrinsic motivation (X2), and self-reported academic achievement (Y). Each variable was measured using 12 items rated on a five-point Likert scale, resulting in a total of 36 questionnaire items.

VARIABLE	CONCEPT	INDICATORS
LEARNING DISCIPLINE (X1)	Self-regulation and adherence to consistent study routines and academic responsibilities.	Punctuality; assignment completion; rule compliance; study regularity; learning independence.
EXTRINSIC MOTIVATION (X2)	External encouragement supporting students' engagement and persistence in learning.	Rewards; recognition/praise; academic competition; lecturer encouragement; institutional reinforcement.
ACADEMIC ACHIEVEMENT (Y)	Students' self-reported academic achievement and perceived attainment of expected learning	Perceived mastery of course material; academic task accomplishment; achievement of

	outcomes.	learning targets; perceived quality of academic performance; consistency of learning outcomes.
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Prior to hypothesis testing, the instruments were examined for validity and internal consistency. Statistical procedures included classical assumption tests (normality, multicollinearity, heteroscedasticity, and linearity), multiple linear regression, t-tests, an F-test, and the coefficient of determination (R^2), using SPSS version 27. Because academic achievement was measured through students' self-reported responses rather than official GPA or academic transcript data, the findings represent perceived academic achievement and should be interpreted accordingly.

RESULT AND DISCUSSIONS

Respondent Profiles

The 85 respondents comprised 20 male students (23.53%) and 65 female students (76.47%). The distribution across study programs consisted of Islamic Religious Education (PAI: 23 students, 27.06%), Arabic Language Education (PBA: 19 students, 22.35%), Islamic Education Management (MPI: 21 students, 24.71%), and Madrasah Ibtidaiyah Teacher Education (PGMI: 22 students, 25.88%).

Instrument Validity and Reliability

Validity testing across all 12 items for X1, 12 items for X2, and 12 items for Y yielded corrected item-total correlation values ranging from $r = 0.600$ to $r = 0.770$, all exceeding the critical table threshold ($r\text{-table} = 0.210$ at $N = 85$, $\alpha = .05$). Reliability testing yielded Cronbach's alpha coefficients of 0.918 for learning discipline, 0.921 for extrinsic motivation, and 0.933 for self-reported academic achievement, indicating high internal consistency.

Classical Assumption Tests

Normality: The Kolmogorov-Smirnov test yielded Asymp. Sig. (2-tailed) = 0.200 ($> .05$), indicating normally distributed residuals.

Multicollinearity: Variance Inflation Factor (VIF) values for X1 and X2 were 1.412 (< 10.0), with tolerance values of 0.708 ($> .10$), indicating no problematic multicollinearity.

Heteroscedasticity: Spearman's Rho tests between the independent variables and absolute residuals yielded significance values above .05 ($X1 = .412$; $X2 = .358$), indicating no evidence of heteroscedasticity.

Linearity: Deviation-from-linearity tests yielded significance values above .05 for both X1-Y and X2-Y relationships, supporting linear relationships.

Multiple Regression and Hypothesis Testing

MODEL / VARIABLE	COEFFICIENT / R^2	T / F	SIG.	RESULT
LEARNING DISCIPLINE (X1)	0.384	$t = 4.732$	0.000	H1 supported
EXTRINSIC	0.451	$t = 5.552$	0.000	H2 supported

MOTIVATION (X2)				
SIMULTANEOUS MODEL (X1 + X2)	$R^2 = 0.555$	$F = 51.229$	0.000	H3 supported

Regression analysis produced the equation $Y = 12.450 + 0.384(X1) + 0.451(X2)$. Learning discipline showed a significant positive regression coefficient ($\beta = 0.384$, $t = 4.732$, $p < .05$), supporting H1. Extrinsic motivation also showed a significant positive regression coefficient ($\beta = 0.451$, $t = 5.552$, $p < .05$), supporting H2. The overall regression model was statistically significant ($F = 51.229$, $p < .001$), supporting H3. The coefficient of determination ($R^2 = 0.555$) indicates that learning discipline and extrinsic motivation jointly accounted for 55.5% of the variance in students' self-reported academic achievement scores. The remaining 44.5% of variance was not accounted for by the predictors included in the model.

Discussion

The findings indicate a significant positive relationship between learning discipline and students' self-reported academic achievement. Students who demonstrate greater consistency in managing study time, completing academic responsibilities, following academic regulations, and maintaining regular learning routines tend to report stronger academic outcomes. This finding is consistent with previous research documenting positive associations between disciplined learning practices and educational achievement (Mulyawati et al., 2019; Pratama & Kurniawan, 2021). Rather than establishing that discipline directly causes higher achievement, the present results indicate that disciplined learning constitutes an important behavioral characteristic associated with students' perceived academic performance.

Within Islamic higher education, learning discipline can be understood beyond procedural compliance with schedules and institutional regulations. Islamic educational thought associates the pursuit of knowledge with consistency, responsibility, perseverance, and appropriate learning conduct. Al-Zarnuji, in *Ta'lim al-Muta'allim*, emphasizes al-jidd (serious effort), perseverance, and disciplined use of time as important conditions in the pursuit of knowledge. From this perspective, learning discipline can be interpreted as both an academic practice and an educational disposition related to *istiqāmah* and responsibility in learning.

The study also identified a significant positive relationship between extrinsic motivation and students' self-reported academic achievement. Recognition from lecturers, academic rewards, constructive competition, and institutional encouragement may provide external support that helps students maintain engagement with academic responsibilities. This finding is consistent with previous studies showing positive relationships between external motivational factors and educational outcomes (Iryanti & Purnomo, 2019; Palangda & Laloan, 2023; Triwulandari et al., 2025).

External motivation, however, does not operate independently of the learning environment. Curriculum, instructional practices, learning resources, and institutional arrangements shape the conditions under which students engage with academic activities. In the context of STAI Attanwir Bojonegoro, Faizin (2020) emphasized the importance of curriculum evaluation for understanding whether educational programs operate in accordance with their intended objectives. Faizin (2021) subsequently examined the use of online learning applications among students at the same institution, illustrating how changes in learning environments require systematic evaluation of students' educational experiences. Together, these studies provide contextual evidence that students' academic development is embedded within broader institutional and instructional conditions.

This perspective is also reflected in studies of instructional practice. Akmalia and Faizin (2021), for example, examined recitation as an alternative method for virtual Nahwu learning. Although the study addressed a different instructional context, it illustrates the importance of adapting pedagogical practices to maintain learning processes when educational environments change. The implication for the present study is that students' motivation and discipline should not be viewed exclusively as fixed individual characteristics. They can also interact with instructional arrangements, forms of support, and learning opportunities provided by educational institutions.

From an Islamic pedagogical perspective, external encouragement can also be considered in relation to *al-targhīb* and *al-tarhīb*. These concepts should not be reduced simply to material rewards and punishment; rather, they represent pedagogical mechanisms through which learners may be encouraged toward responsible behavior and sustained engagement. This interpretation can be placed alongside Self-Determination Theory, which recognizes that externally initiated motivation differs in the degree to which it becomes internalized by learners (Deci & Ryan, 2000). External encouragement may therefore be educationally productive when it supports, rather than replaces, students' developing responsibility for their own learning.

The simultaneous contribution of learning discipline and extrinsic motivation is particularly noteworthy. The regression model accounted for 55.5% of the variance in students' self-reported academic achievement scores. This suggests that perceived academic achievement is associated with both individual learning practices and supportive external conditions. Discipline represents students' capacity to organize and sustain learning behavior, whereas extrinsic motivation reflects encouragement embedded in their social and institutional environments. The findings therefore support an understanding of academic development as emerging from interactions between learner characteristics and educational conditions rather than from either dimension in isolation.

For Islamic higher education institutions, this interaction has practical implications. Academic mentoring, lecturer feedback, recognition, and institutional incentive systems can be designed not merely to encourage short-term performance but also to cultivate sustained learning responsibility. Integrating these mechanisms with values such as

istiqāmah, amānah, and ihsān may enable institutions to position academic achievement within the broader purpose of Islamic education: developing learners who combine intellectual development with responsible and ethical conduct.

Several limitations should nevertheless be acknowledged. First, the cross-sectional correlational design does not establish causal relationships between learning discipline, extrinsic motivation, and academic achievement. Second, academic achievement was measured through a 12-item self-report questionnaire rather than directly through official GPA or transcript data. The findings therefore reflect students' perceived academic achievement and may be influenced by self-report bias. Third, the study was conducted within a single Islamic higher education institution, limiting the generalizability of the findings. Future studies could employ objective academic records, longitudinal designs, and multi-institutional samples and examine additional factors such as intrinsic motivation, religiosity, socioeconomic background, digital learning environments, and institutional support.

CONCLUSION

This study found significant positive relationships between learning discipline, extrinsic motivation, and students' self-reported academic achievement at the Faculty of Tarbiyah, Institut At-Tanwir Bojonegoro. Learning discipline and extrinsic motivation jointly accounted for 55.5% of the variance in academic achievement scores within the regression model. The findings suggest that students' perceived academic achievement is associated with both disciplined individual learning practices and supportive external conditions.

Within Islamic higher education, these findings highlight the importance of developing educational environments that connect academic support with responsible learning practices and Islamic educational values. Academic mentoring, constructive lecturer feedback, recognition, and appropriate incentive systems may support students' engagement while simultaneously encouraging istiqāmah, amānah, responsibility, and sustained commitment to learning.

The findings should be interpreted in light of the study's cross-sectional and self-report design and should not be regarded as evidence of causal relationships. Future studies are encouraged to combine questionnaire measures with objective academic records, involve multiple Islamic higher education institutions, and employ longitudinal designs to investigate how discipline, intrinsic and extrinsic motivation, institutional support, and other psychological and educational factors interact over time.

REFERENCE

- Akmalia, F., & Faizin, K. (2021). Recitation: An alternative method for virtual Nahwu learning. *Ta'lim al-'Arabiyyah: Jurnal Pendidikan Bahasa Arab & Kebahasaaraban*, 5(1), 97–110. <https://doi.org/10.15575/jpba.v5i1.12435>
- Arikunto, S. (2019). *Prosedur penelitian: Suatu pendekatan praktik*. Rineka Cipta.
- Az-Zarnuji, I. (2016). *Ta'lim al-Muta'allim Tariq at-Ta'allum*. Nurul Huda.

- Deci, E. L., & Ryan, R. M. (2000). The "what" and "why" of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, 11(4), 227–268. https://doi.org/10.1207/S15327965PLI1104_01
- Faizin, K. (2020). Evaluasi kurikulum pembelajaran Bahasa Arab di STAI Attanwir Bojonegoro. *Al-Idaroh: Jurnal Studi Manajemen Pendidikan Islam*, 4(1), 74–85. <https://doi.org/10.54437/alidaroh.v4i1.139>
- Faizin, K. (2021). Evaluasi penggunaan aplikasi pembelajaran online mahasiswa STAI Attanwir Bojonegoro. *Fikroh: Jurnal Pemikiran dan Pendidikan Islam*, 14(2), 104–113. <https://doi.org/10.37812/fikroh.v14i2.193>
- Ghozali, I. (2018). *Aplikasi analisis multivariate dengan program IBM SPSS 25*. Badan Penerbit Universitas Diponegoro.
- Iryanti, I., & Purnomo, R. (2019). Pengaruh penerapan SKS, motivasi ekstrinsik, dan disiplin belajar terhadap prestasi belajar ekonomi siswa kelas XI IPS SMAN 3 Purwokerto. *Soedirman Economics Education Journal*, 1(1), 43–59.
- Mulyawati, Y., Sumardi, S., & Elvira, S. (2019). Pengaruh disiplin belajar terhadap hasil belajar ilmu pengetahuan sosial. *Pedagonal: Jurnal Ilmiah Pendidikan*, 3(1), 1–14. <https://doi.org/10.33751/pedagog.v3i1.980>
- Palangda, L., & Laloan, C. (2023). Pengaruh motivasi intrinsik dan motivasi ekstrinsik terhadap hasil belajar siswa di SMKN 2 Tondano. *Innovative: Journal of Social Science Research*, 3(4), 9627–9640.
- Skinner, B. F. (1953). *Science and human behavior*. Macmillan.
- Slameto. (2010). *Belajar dan faktor-faktor yang mempengaruhinya*. Rineka Cipta.
- Sugiyono. (2019). *Metode penelitian kuantitatif, kualitatif, dan R&D*. Alfabeta.
- Triwulandari, F. H., Glorianti, Y., Coppo, A. N. A., Febriandini, F., & Arsyilla, I. (2025). Pengaruh motivasi belajar, disiplin, dan lingkungan kampus terhadap prestasi akademik mahasiswa. *Jurnal Interdisipliner*, 2(2), 90–106.
- Uno, H. B. (2021). *Teori motivasi dan pengukurannya: Analisis di bidang pendidikan*. Bumi Aksara.