

Attitude Towards Artificial Intelligence, Academic Motivation and Performance of Students

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ABSTRACT

This study examined the levels and relationships among attitude toward artificial intelligence (AI), academic motivation, and academic performance of Grade 6 students. Employing a quantitative descriptive-correlational research design, the study involved 175 Grade 6 learners enrolled in a local elementary school in the Negros Island Region, Philippines, during the School Year 2025–2026. Data were gathered using a researcher-developed questionnaire measuring students' attitude toward AI and academic motivation, while academic performance was determined from their final general weighted averages. Descriptive statistics, including mean and standard deviation, and inferential statistics, specifically Spearman rank-order correlation were utilized to analyze the data. Results revealed that students demonstrated a high level of attitude toward AI and academic motivation, together with a very satisfactory level of academic performance. Attitude toward AI showed no significant relationship with academic performance, and academic motivation likewise exhibited no significant relationship with academic performance. The findings indicate that although students possessed favorable perceptions of AI and strong academic motivation, neither variable independently corresponded with their academic achievement. The study underscores the importance of implementing responsible AI integration and learner-support initiatives while addressing cognitive, instructional, and environmental factors that contribute to improved academic performance.

Keywords: Artificial Intelligence, Attitude Toward AI, Academic Motivation, Academic Performance.

INTRODUCTION

Artificial intelligence (AI) has become an integral component of contemporary education, transforming how students acquire knowledge, complete academic tasks, and interact with learning resources. As AI-powered applications become more accessible, students increasingly rely on these technologies for information retrieval, writing assistance, problem-solving, and personalized learning. While AI offers opportunities to improve learning efficiency, its educational value depends largely on how learners perceive and utilize these technologies. Studies indicate that students who hold favorable attitudes toward AI are more likely to engage meaningfully in learning activities, sustain higher levels of academic motivation, and demonstrate better academic performance. Conversely, negative perceptions or excessive dependence on AI may weaken learners' autonomy, critical thinking, and self-regulated learning, thereby affecting their academic outcomes (Crompton & Burke, 2023; Kasneci et al., 2023; UNESCO, 2023). These findings suggest that attitude toward AI, academic motivation, and academic performance are interconnected constructs that warrant empirical investigation.

Recent international studies have consistently reported that positive attitudes toward AI encourage greater learner engagement, confidence, and motivation, which subsequently contribute to improved academic achievement. AI-assisted learning environments provide immediate feedback, adaptive instruction, and personalized learning experiences that foster students' persistence and interest in academic tasks. Nevertheless, scholars have cautioned

that the educational benefits of AI depend on its responsible and balanced use. Overreliance on AI-generated outputs may diminish students' independent learning, creativity, and higher-order thinking skills, emphasizing the need to examine both the advantages and potential limitations of AI integration in education (Kasneci et al., 2023; Crompton & Burke, 2023; UNESCO, 2023). Consequently, understanding students' attitudes toward AI has become increasingly important in explaining variations in academic motivation and educational performance.

In the Philippine educational setting, the rapid expansion of digital technologies has accelerated students' exposure to AI-powered learning applications. Filipino learners increasingly utilize AI to support writing, research, information organization, and classroom learning. Local studies generally report positive perceptions of AI because these technologies improve learning efficiency, accessibility, and academic productivity. However, educators have also raised concerns regarding academic integrity, excessive dependence on AI-generated content, and the possible decline in students' independent learning and critical thinking skills. Although existing Philippine research has extensively examined AI literacy, technology acceptance, and behavioral intention, relatively few investigations have explored how students' attitudes toward AI influence both their academic motivation and academic performance, particularly among learners in basic education (Commission on Higher Education [CHED], 2024; UNESCO, 2023; Crompton & Burke, 2023).

Despite the growing integration of AI into educational practice, empirical evidence involving Grade 6 learners remains limited, especially within the Negros Island Region. Most existing studies have focused on secondary or tertiary education, providing insufficient evidence on younger learners whose learning habits and motivational characteristics are still developing. Furthermore, limited research has simultaneously examined the relationship among attitude toward artificial intelligence, academic motivation, and academic performance within the elementary education context. Addressing this gap is essential to determine whether students' perceptions of AI contribute to meaningful learning outcomes and academic success. Hence, this study was conducted to examine the relationship among attitude toward artificial intelligence, academic motivation, and academic performance of Grade 6 students in a local elementary school in the Negros Island Region. The findings are expected to provide empirical evidence that can guide educators and school leaders in promoting the responsible, ethical, and educationally effective integration of AI in basic education.

METHODOLOGY

This study employed a quantitative descriptive-correlational research design to determine the levels of students' attitudes toward artificial intelligence (AI), academic motivation, and academic performance, as well as the relationships among these variables. The study was conducted among 175 Grade 6 students enrolled in a local elementary school in the Negros Island Region, Philippines, during School Year 2025–2026. Total enumeration was employed, allowing all eligible Grade 6 students to participate in the study.

Data were gathered using a researcher-made questionnaire adapted from Asio (2024) and Alison et al. (2025). The instrument consisted of 20 items measuring attitude toward AI across four dimensions—perceived usefulness, interest and acceptance, confidence in using AI, and ethical concerns and awareness—and 15 items measuring academic motivation in terms of intrinsic motivation, extrinsic motivation, and amotivation. Responses were rated using a five-point Likert scale. Academic performance was measured using the students' final general average.

The instrument underwent expert validation and pilot testing before the actual data collection. Five educational experts evaluated the questionnaire, and both constructs obtained a Content Validity Ratio of 1.00. Pilot testing with 30 comparable students yielded Cronbach's alpha coefficients of 0.860 for attitude toward AI and 0.771 for academic motivation, indicating acceptable to very good internal consistency.

Prior to data collection, permission was obtained from the concerned educational authorities and school administration. The questionnaires were administered with the assistance of the school administration, and the completed responses were collected, organized, and prepared for analysis. Mean and standard deviation were used to describe the levels of attitude toward AI, academic motivation, and academic performance, while Spearman's rank-order correlation was employed to determine the significance, direction, and strength of the relationships between the study variables.

RESULTS AND DISCUSSIONS

Level of Attitude Towards Artificial Intelligence of Students when taken as a Whole and in terms of

Perceived Usefulness, Interest and Acceptance, Confidence in Using AI, and Ethical Concerns and Awareness

Table 1. Level of Attitude Towards Artificial Intelligence of Students when taken as a Whole and in terms of Perceived Usefulness, Interest and Acceptance, Confidence in Using AI, and Ethical Concerns and Awareness.

Statements	Mean	SD	Interpretation
As a Whole	3.93	0.66	High
Perceived Usefulness	4.02	0.69	High
1. AI helps improve my learning efficiency.	4.18	0.94	High
2. AI tools make studying easier.	4.01	0.93	High
3. AI supports me in completing academic tasks.	4.06	0.95	High
4. AI enhances my understanding of lessons.	3.94	1.00	High
5. AI improves my productivity.	3.90	1.03	High
Interest and Acceptance	3.82	0.83	High
6. I enjoy using AI technologies for learning.	3.94	1.03	High
7. I am interested in learning more about AI.	3.89	1.04	High
8. I am comfortable using AI in education.	3.75	1.09	High
9. I believe in AI in education.	3.71	1.16	High
10. I am willing to use AI for future learning activities	3.81	1.09	High
Confidence in Using AI	3.89	0.78	High
11. I feel confident using AI tools for academic purposes.	3.79	1.10	High
12. I can easily learn how to use AI technologies.	3.93	0.98	High
13. I can solve academic problems using AI technologies.	3.98	1.12	High
14. I feel capable of navigating AI applications.	3.79	1.01	High
15. I can use AI responsibly in my studies.	3.94	1.11	High
Ethical Concerns and Awareness	3.99	0.80	High
16. AI should be used responsibly in education.	4.03	1.19	High
17. Students should avoid overdependence on AI.	4.13	1.00	High
18. AI may create ethical issues in academic work.	3.95	1.07	High
19. AI should support learning rather than replace effort.	4.05	1.07	High
20. Proper guidelines are necessary when using AI.	3.81	1.23	High
<i>Legend: (4.21-5.00)-Very High; (3.41-4.20)-High; (2.61-3.40)-Moderate; (1.81-2.60)-Low; (1.00-1.80)-Very Low</i>			

Table 1 presents the level of students' attitude toward artificial intelligence (AI). Overall, the respondents exhibited a high level of attitude toward AI ($M = 3.93$, $SD = 0.66$). This finding indicates that students generally hold favorable perceptions of AI and are receptive to its integration into academic activities. The result suggests that AI is widely regarded as a beneficial educational technology capable of supporting learning while encouraging responsible use. These findings are consistent with the studies of Chan and Hu (2023), who reported that university students generally expressed positive attitudes toward the educational use of generative AI, and Crompton and Burke (2023), whose review concluded that AI is increasingly perceived as an effective instructional support that enhances teaching and learning in higher education.

Among the dimensions, Perceived Usefulness obtained the highest mean and was interpreted as high ($M = 4.02$, $SD = 0.69$). This result indicates that students strongly recognize AI as a valuable educational tool that improves learning efficiency, facilitates academic tasks, enhances understanding of lessons, and increases productivity. The highest-rated indicator, "AI helps improve my learning efficiency" ($M = 4.18$, $SD = 0.94$), reinforces students' belief that AI contributes positively to their academic performance by making learning more effective

and efficient. These findings support the Technology Acceptance Model, which posits that perceived usefulness is a primary determinant of technology adoption. Similar results were reported by Sallam (2023), who found that users viewed AI as an effective tool for improving educational outcomes, and Dwivedi et al. (2023), who concluded that the perceived academic benefits of generative AI significantly influence students' acceptance and continued use of AI technologies.

The dimension Ethical Concerns and Awareness likewise received a high level ($M = 3.99$, $SD = 0.80$), indicating that respondents recognize the importance of responsible AI utilization and remain aware of the ethical implications associated with its use. The highest-rated statement, "Students should avoid overdependence on AI" ($M = 4.13$, $SD = 1.00$), suggests that students appreciate AI as a learning aid but believe it should complement rather than replace independent thinking and academic effort. Similarly, the high ratings for responsible AI use and the need for proper guidelines demonstrate students' awareness of academic integrity and ethical standards. These findings align with Kasneci et al. (2023), who emphasized that effective AI integration requires ethical responsibility and critical thinking, and UNESCO (2023), which underscored the necessity of governance frameworks and ethical guidelines to ensure responsible AI implementation in education.

The dimension Confidence in Using AI was also rated high ($M = 3.89$, $SD = 0.78$), suggesting that students generally possess confidence in using AI applications for academic purposes. Respondents expressed confidence in learning AI technologies, solving academic problems using AI, navigating AI applications, and applying these tools responsibly. The highest-rated indicator, "I can solve academic problems using AI technologies" ($M = 3.98$, $SD = 1.12$), indicates that students perceive themselves as capable of effectively utilizing AI to support their academic tasks. These findings are supported by Chan and Hu (2023), who found that students with greater confidence in AI tools demonstrated stronger intentions to integrate them into learning, and Abdullah et al. (2024), who reported that AI self-efficacy significantly contributes to students' readiness and willingness to adopt AI technologies in higher education.

Lastly, Interest and Acceptance obtained a high rating ($M = 3.82$, $SD = 0.83$), indicating that students generally exhibit positive interest in AI and are willing to incorporate it into their future learning experiences. Students reported enjoying AI-assisted learning, expressing curiosity about AI technologies, and demonstrating openness toward using AI in educational settings. Although this dimension recorded the lowest mean among the four, the result still reflects a favorable level of acceptance. This suggests that while students recognize the benefits of AI, their long-term adoption may depend on continued exposure, institutional support, and appropriate training. Similar findings were reported by Chan and Hu (2023), who observed that students' interest and acceptance of AI increase when they perceive educational value, and Crompton and Burke (2023), who concluded that positive learning experiences with AI foster greater acceptance and sustained engagement with emerging educational technologies.

Overall, the findings demonstrate that students possess a favorable attitude toward artificial intelligence across all dimensions. Their strong perceptions of AI's usefulness, ethical awareness, confidence in using AI, and willingness to embrace AI-supported learning indicate a positive disposition toward integrating AI into educational practices. These results suggest that AI has considerable potential to enhance students' academic experiences, provided that its implementation is accompanied by ethical guidance, responsible use, and appropriate instructional support.

Level of Academic Motivation of Students when taken as a Whole and in terms of Intrinsic Motivation, Extrinsic Motivation, and Amotivation

Table 2. Level of Academic Motivation of Students when taken as a Whole and in terms of Intrinsic Motivation, Extrinsic Motivation, and Amotivation.

Statements	Mean	SD	Interpretation
As a Whole	4.07	0.60	High
Intrinsic Motivation	4.26	0.65	Very High
1. I study because I enjoy learning new things.	4.53	0.73	Very High
2. I feel satisfied when I accomplish academic tasks	4.38	0.86	Very High

3. Learning gives me personal fulfillment.	4.27	0.87	Very High
4. I enjoy participating in classroom discussions.	4.11	1.02	High
5. I feel motivated when solving difficult problems.	4.01	1.09	High
Extrinsic Motivation	4.34	0.69	Very High
6. I study to obtain good grades.	4.50	0.82	Very High
7. I work hard to receive recognition from others.	4.31	0.83	Very High
8. I want to succeed academically for future opportunities.	4.42	0.87	Very High
9. Rewards encourage me to study harder.	4.21	0.96	Very High
10. I study to meet my family's expectations.	4.25	1.07	Very High
Amotivation	3.61	1.05	High
11. I sometimes feel that studying is meaningless.	3.67	1.34	High
12. I feel unmotivated to complete the school tasks.	3.91	1.16	High
13. I struggle to find reasons for studying.	3.69	1.30	High
14. I lose interest in school activities easily.	3.45	1.31	High
15. I feel uncertain about the importance of my studies.	3.31	1.48	Moderate
<i>Legend: (4.21-5.00)-Very High; (3.41-4.20)-High; (2.61-3.40)-Moderate; (1.81-2.60)-Low; (1.00-1.80)-Very Low</i>			

Overall, the respondents demonstrated a high level of academic motivation ($M = 4.07$, $SD = 0.60$), indicating that they generally possessed strong motivational tendencies toward their academic pursuits. This finding suggests that the students were motivated by both internal satisfaction and external incentives, which may contribute positively to their learning engagement and academic performance. Recent studies have likewise reported that students with higher academic motivation tend to exhibit greater persistence, engagement, and academic success (Howard et al., 2021; Ryan & Deci, 2023; Liu et al., 2022).

Among the three dimensions, extrinsic motivation obtained the highest mean and was interpreted as very high ($M = 4.34$, $SD = 0.69$). This indicates that students were strongly motivated by external factors such as achieving good grades, gaining recognition, fulfilling family expectations, and securing future educational and career opportunities. Specifically, the highest-rated indicator was “I study to obtain good grades” ($M = 4.50$, $SD = 0.82$), followed by “I want to succeed academically for future opportunities” ($M = 4.42$, $SD = 0.87$) and “I work hard to receive recognition from others” ($M = 4.31$, $SD = 0.83$), all interpreted as very high. These findings imply that external rewards and future aspirations remain important drivers of students’ learning behaviors. This result is consistent with the findings of Howard et al. (2021), Guay (2022), and Ryan and Deci (2023), who emphasized that identified and external forms of motivation continue to promote persistence and academic achievement when students perceive educational goals as valuable.

Intrinsic motivation also registered a very high level ($M = 4.26$, $SD = 0.65$), suggesting that students genuinely enjoyed learning and derived personal satisfaction from academic activities. The highest-rated statement was “I study because I enjoy learning new things” ($M = 4.53$, $SD = 0.73$), followed by “I feel satisfied when I accomplish academic tasks” ($M = 4.38$, $SD = 0.86$) and “Learning gives me personal fulfillment” ($M = 4.27$, $SD = 0.87$), all interpreted as very high. Meanwhile, enjoyment in classroom discussions ($M = 4.11$, $SD = 1.02$) and motivation in solving difficult problems ($M = 4.01$, $SD = 1.09$) were rated high, indicating that although students generally valued learning, more cognitively demanding or interactive tasks elicited relatively lower enthusiasm. These findings support the literature indicating that intrinsically motivated learners demonstrate greater curiosity, self-regulation, and sustained academic engagement (Ryan & Deci, 2023; Howard et al., 2021; Bureau et al., 2022).

Conversely, amotivation was rated high ($M = 3.61$, $SD = 1.05$), indicating that despite having strong intrinsic and extrinsic motivation, students still experienced episodes of diminished interest or uncertainty toward their studies. The highest-rated item was “I feel unmotivated to complete the school tasks” ($M = 3.91$, $SD = 1.16$), followed by “I struggle to find reasons for studying” ($M = 3.69$, $SD = 1.30$) and “I sometimes feel that studying is meaningless” ($M = 3.67$, $SD = 1.34$), all interpreted as high. In contrast, “I feel uncertain about the importance of my studies” received the lowest mean ($M = 3.31$, $SD = 1.48$) and was interpreted as moderate, suggesting that most students still recognized the value of education despite occasional motivational difficulties. This finding aligns with recent evidence showing that learners may simultaneously experience high motivation and periods of

amotivation due to academic stress, workload, or emotional exhaustion (Camacho et al., 2021; Howard et al., 2021; Salmela-Aro & Upadyaya, 2022).

Level of Academic Performance of the Students

Table 3. Level of Academic Performance of the Students.

Level of Academic Performance	f	Mean	SD	Interpretation
Outstanding	80	88.75	3.86	Very Satisfactory
Very Satisfactory	64			
Satisfactory	30			
Fairly Satisfactory	1			
Did Not Meet Expectations	0			
Total	175			
<i>Legend: (90-100)-Outstanding; (85-89)-Very Satisfactory; (80-84)-Satisfactory; (75-79)-Fairly Satisfactory; (below 75)-Did Not Meet Expectations</i>				

The findings revealed that the students attained an overall very satisfactory level of academic performance ($M = 88.75$, $SD = 3.86$). Based on the frequency distribution, 80 students achieved an outstanding level, 64 students obtained a very satisfactory rating, 30 students were classified as satisfactory, one student attained a fairly satisfactory rating, and none fell under the did not meet expectations category. The relatively high mean and modest standard deviation indicate that the students generally maintained favorable academic achievement with minimal variation in performance across the sample. This finding suggests that the respondents demonstrated a satisfactory level of academic competence and were able to meet the expected learning standards.

The predominance of students within the Outstanding and Very Satisfactory categories further indicates that the majority consistently performed well in their academic tasks. Such performance may be attributed to students' strong academic motivation, effective learning strategies, and positive engagement in school-related activities. Previous studies have consistently shown that motivated and engaged learners exhibit higher academic achievement because they demonstrate greater persistence, self-regulation, and commitment to learning goals (Howard et al., 2021; Mega et al., 2021; Salmela-Aro & Upadyaya, 2022). These findings suggest that students who maintain high levels of motivation are more likely to attain favorable academic outcomes.

The overall very satisfactory academic performance of the respondents also aligns with contemporary educational research emphasizing that academic success is influenced by a combination of motivational, cognitive, and environmental factors. Students who experience supportive learning environments, possess effective self-regulatory skills, and perceive value in their educational experiences are more likely to sustain high academic achievement (OECD, 2023; Ryan & Deci, 2023; UNESCO, 2023). Consequently, the present findings imply that the respondents have developed the necessary academic behaviors and learning dispositions that enable them to perform successfully despite the increasing demands of contemporary education.

Relationship Between Attitude Towards Artificial Intelligence and Academic Performance

Table 4. Relationship Between the Attitude Towards Artificial Intelligence and Academic Performance.

Variable	Test Statistics (r_s)	p-value	Decision for H_0	Interpretation
Attitude Towards Artificial Intelligence vs. Academic Performance	0.020	0.790	Fail to Reject H_0	Not Significant

The results indicate that attitude towards artificial intelligence was not significantly related to students' academic performance, as evidenced by a negligible positive correlation, ($r_s = 0.020$, $p = 0.790$). Since the obtained p-value exceeded the .05 level of significance, the null hypothesis was failed to be rejected, indicating that students' attitudes toward AI did not have a statistically significant association with their academic performance. The

extremely weak correlation further suggests that variations in students' perceptions, acceptance, or confidence in using AI were not reflected in differences in their academic achievement. This finding implies that while students may hold favorable or unfavorable attitudes toward AI, these attitudes alone are insufficient to directly influence academic outcomes, which are likely shaped by multiple cognitive, motivational, instructional, and environmental factors.

The finding is consistent with recent studies reporting that positive attitudes toward AI or AI-assisted learning do not necessarily translate into higher academic achievement. For instance, Chan and Hu (2023) found that although university students generally demonstrated favorable perceptions of generative AI tools, these attitudes were not significant predictors of academic performance, emphasizing that effective learning depends more on students' self-regulated learning behaviors and instructional practices than on technology acceptance alone. Similarly, Crompton and Burke (2023) concluded that while AI applications can enhance learning experiences, improvements in academic performance depend largely on how these technologies are pedagogically integrated rather than on learners' attitudes toward AI. Likewise, Kasneci et al. (2023) argued that AI has substantial educational potential, but its impact on academic achievement is contingent upon appropriate instructional implementation, learner engagement, and responsible use rather than positive perceptions alone.

Relationship Between Academic Motivation and Academic Performance

Table 5. Relationship between Academic Motivation and Academic Performance.

Variable	Test Statistics (r_s)	p-value	Decision for H_0	Interpretation
Academic Motivation vs. Academic Performance	-0.005	0.945	Fail to Reject H_0	Not Significant

The results presented in Table 5 reveal that academic motivation was not significantly associated with students' academic performance, as indicated by an almost nonexistent negative correlation, ($r_s = -0.005$, $p = 0.945$). Because the obtained p-value was substantially greater than the .05 level of significance, the null hypothesis was failed to be rejected, suggesting that academic motivation did not have a statistically significant relationship with academic performance among the respondents. The near-zero correlation coefficient further indicates that differences in students' motivational levels were not accompanied by corresponding differences in their academic achievement. This finding suggests that although motivation is widely recognized as an important psychological factor in learning, its influence on academic performance may be moderated by other variables such as learning strategies, self-regulation, instructional quality, prior knowledge, and socioeconomic or environmental conditions.

The present finding is supported by recent studies showing that motivation alone does not consistently predict academic achievement. Howard et al. (2021) reported that while academic motivation contributes to students' engagement, its direct effect on academic performance becomes weak or nonsignificant when other learner characteristics, such as self-regulated learning and academic self-efficacy, are considered. Likewise, Mega et al. (2021) emphasized that motivated students do not necessarily achieve higher academic outcomes unless their motivation is translated into effective learning behaviors, including persistence, strategic learning, and time management. Similarly, Sailer et al. (2023) concluded that academic performance is better explained by the interaction of motivation with cognitive and behavioral factors rather than by motivation alone, indicating that motivation is a necessary but insufficient condition for improved academic achievement.

CONCLUSIONS

Based on the findings of the study, the following conclusions were formulated:

Students possess a generally positive attitude toward artificial intelligence, characterized by high levels of perceived usefulness, ethical awareness, confidence in its use, and acceptance of AI as a learning resource. In addition, students are well-positioned to integrate AI into their academic activities, underscoring its potential to enhance learning when implemented responsibly and supported by appropriate educational guidance.

Students exhibit a strong level of academic motivation, driven primarily by both intrinsic and extrinsic factors that encourage active engagement in learning and the pursuit of academic success. Although some students reported occasional experiences of amotivation, these did not diminish their overall motivational orientation, suggesting that they remain committed to achieving positive educational outcomes.

Students achieved a very satisfactory level of academic performance, reflecting their consistent attainment of expected learning standards. Furthermore, the students possess the academic competence necessary to sustain favorable educational outcomes.

Students' attitude toward artificial intelligence was not significantly associated with their academic performance, suggesting that favorable perceptions and acceptance of AI do not necessarily translate into higher academic achievement. Likewise, academic performance is influenced by multiple interacting factors beyond students' attitudes toward artificial intelligence alone.

Academic motivation was not significantly associated with students' academic performance, suggesting that higher levels of motivation did not necessarily correspond to better academic achievement. Students' performance is influenced by a broader set of cognitive, instructional, behavioral, and environmental factors rather than academic motivation alone.

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