



International Journal of Artificial Intelligence and Machine Learning

Publisher's Home Page: <https://www.svedbergopen.com/>



Research Paper

Open Access

Academic Dishonesty In The Age Of Artificial Intelligence: The Role Of University Students' Epistemological Beliefs

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Abstract

Digital technologies and generative artificial intelligence have reshaped university learning by expanding access to information while also creating new pathways for academic misconduct. This study examined university students' epistemological belief profiles, their engagement in internet-triggered academic dishonesty, perceived contributing factors, and the extent to which belief dimensions predict dishonest behavior in online contexts. A descriptive-correlational design was used to obtain data from 279 students at a public state university in the northern Philippines using the Internet-Triggered Academic Dishonesty Scale and the Epistemological Beliefs Questionnaire. Data were analyzed using descriptive statistics, Spearman's rank-order correlation, and multiple linear regression. Findings revealed generally low to modest engagement in internet-facilitated dishonesty, with delinquency recording the highest composite mean and fraudulence the lowest, suggesting that routine, collaborative, and citation-related lapses were more evident than deliberate deception. Students also showed developing epistemological beliefs, particularly in active knowledge acquisition and valuing learning, although beliefs about learning speed and ability remained less mature. Overall, epistemological beliefs were significantly and negatively correlated with internet-triggered academic dishonesty ($\rho = -0.196, p = 0.001$). Regression results further revealed that acquisition of knowledge ($\beta = -0.255, p = 0.002$) and speed of learning ($\beta = -0.244, p = 0.007$) significantly predicted dishonest behavior, with the model explaining 13.3% of the variance. The study concludes that academic integrity in the digital age requires not only sanctions but also educative policies, responsible AI guidance, process-based assessment, and programs that cultivate epistemic maturity, persistence, and ethical ownership of learning.

Keywords: Academic Dishonesty; Academic Integrity; Digital Learning; Epistemological Beliefs; Generative AI; University Students.

Introduction

The digital age has reshaped how university students access, produce, submit, and defend academic work. Learning management systems, online repositories, collaborative documents, paraphrasing applications, citation generators, and generative artificial intelligence (AI) tools now support inquiry, revision, feedback, and independent learning. However, the same tools may also facilitate plagiarism, recycled submissions, unauthorized collaboration, source manipulation, contract cheating, and unacknowledged AI-assisted writing. Because these practices often occur within routine online learning activities, internet-triggered academic dishonesty should be examined as a digitally mediated integrity problem shaped by technological access, assessment practices, institutional expectations, and students' academic judgments (1-5).

The issue is not merely whether students can obtain information online, but how they evaluate, transform, and acknowledge what they use. Digital resources can strengthen scholarship when students compare evidence, verify sources, synthesize ideas, and disclose assistance; yet they can weaken academic ownership when students use them to bypass reading, conceal copied work, fabricate support, or submit outputs they have not meaningfully understood. This tension is intensified by generative AI, which produces fluent text quickly and blurs boundaries among assistance, authorship, and misrepresentation (1,4,5).

Personal epistemology provides a useful lens for understanding these decisions. It explains how learners view the nature of knowledge and the process of knowing, including whether knowledge is seen as certain or evolving, simple or interconnected, transmitted by authority or actively constructed, acquired quickly or gradually, dependent on fixed ability or sustained effort, and valuable for personal growth. Students with more developed

epistemological beliefs tend to evaluate evidence more carefully, regulate their learning, persist through difficulty, and treat academic tasks as opportunities for meaning making rather than as requirements that can be completed through shortcuts (6-13).

Academic dishonesty is rarely produced by opportunity alone. Grade pressure, workload, procrastination, time constraints, peer influence, weak confidence in subject matter, unclear collaboration rules, and inconsistent enforcement can make questionable practices appear convenient or defensible. In online settings, these pressures interact with the perceived ease of copying, paraphrasing, outsourcing, or falsifying academic work. A balanced response therefore requires clear policy, fair sanctions, educative prevention, digital-literacy guidance, and a shared culture of honesty, trust, fairness, respect, responsibility, and courage (14-22).

In Philippine public higher education, these concerns are especially relevant because students increasingly complete research, writing, and performance-based tasks through internet-supported platforms while also navigating diverse levels of digital access, preparation, and academic support. Detection- or punishment-centered approaches may be insufficient when they do not address the beliefs and pressures that lead students toward dishonest shortcuts. Prior integrity interventions emphasize explicit instruction, plagiarism-awareness efforts, developmental programs, and assessment designs that reduce incentives for misconduct, yet empirical attention to the role of epistemological belief dimensions in internet-triggered academic dishonesty remains limited in this context (23-26).

To address this gap, the present study examined university students' epistemological belief profiles, their self-reported engagement in internet-triggered academic dishonesty, the perceived personal and institutional factors contributing to such behavior, and the predictive role of specific belief dimensions. By linking digitally mediated dishonest practices with students' beliefs about knowledge acquisition, learning speed, learning ability, certainty and simplicity of knowledge, and the value of learning, the study offers evidence for academic integrity interventions that are preventive, developmental, and responsive to contemporary digital learning conditions.

Conceptual Framework

The conceptual framework of the study is grounded in personal epistemology, which emphasizes how students' beliefs about knowledge and learning shape the way they approach academic tasks, evaluate information sources, and exercise responsibility in scholarly work. As presented in Figure 1, the epistemological belief profile is identified as the independent variable, while internet-triggered academic dishonesty is treated as the dependent variable. The framework centers on the assumption that students' beliefs about the nature, acquisition, speed, ability, and value of learning may be associated with their engagement in dishonest academic practices facilitated by online resources.

Contextual contributing factors are likewise recognized in the study, particularly personal factors such as grade pressure, limited time, workload, procrastination, social demands, and perceived competence, as well as institutional factors such as policy clarity, sanctions, enforcement, assessment design, and guidance on the responsible use of internet-based or AI-supported resources. These factors provide important background for understanding students' reported experiences and perceptions. However, since the study did not statistically examine their relationship with either epistemological beliefs or internet-triggered academic dishonesty, they were treated as descriptive context rather than as a distinct component of the conceptual model. In this way, the framework remains focused on the variables directly examined in the study, particularly the profiling of students' epistemological beliefs, the assessment of dishonest online academic behaviors, the analysis of their relationship, and the identification of belief dimensions that may predict internet-triggered academic dishonesty.



Figure 1: Schematic diagram showing the relationship between university students' epistemological belief dimensions and internet-triggered academic dishonesty

Research Objectives

The study specifically aimed to:

- (a) describe university students' epistemological belief profiles in terms of certainty and simplicity of knowledge, acquisition of knowledge, speed of learning, ability to learn, and value of learning;
- (b) determine their self-reported engagement in internet-triggered academic dishonesty and the perceived contributing factors;
- (c) examine the relationship between epistemological beliefs and dishonest behavior in online contexts; and
- (d) identify the epistemological belief dimensions that significantly predict internet-triggered academic dishonesty.

Methodology

Research Design

A quantitative, cross-sectional descriptive-correlational methodology was used in the current study to explore whether there is a relation between university students' epistemological beliefs and their self-reported involvement in internet-facilitated academic dishonesty. The descriptive component was used to summarize students' belief profiles, dishonest academic behaviors, and perceived contributing factors through means and standard deviations. The correlational component determined whether students' epistemological beliefs were significantly associated with internet-triggered academic dishonesty. A predictive analysis was also conducted through multiple linear regression to identify which epistemological belief dimensions uniquely explained variations in dishonest academic behavior. Since the study was observational and cross-sectional, the findings were interpreted as associations and statistical predictions rather than causal relationships.

Locale and Participants of the Study

The study was conducted in a public state university situated in the Northern Philippines (approximate GPS coordinates 17.659049° N, 121.753178° E). The respondents hailed from this institution, particularly from a college unit offering physical education and sport-related programs. Convenience sampling was employed to reach undergraduate students who met the eligibility requirements and were available and willing to participate during the period of data collection. A total of 279 university students completed the survey. Since the participants came from a specific campus, academic level, and program cluster, the findings should be interpreted within this institutional and disciplinary context.

Inclusion criteria

The participants were selected based on clearly defined inclusion criteria. To qualify for participation, students had to be:

- (a) officially enrolled undergraduate students in the participating college unit during the conduct of the study;
- (b) familiar with completing academic tasks that involved the use of the internet or online resources;
- (c) available during the survey administration; and
- (d) willing to participate voluntarily after being informed of the purpose of the study, the nature of their involvement, and the ethical safeguards observed.

Students who declined to participate, withdrew at any point, or submitted substantially incomplete responses were excluded from the final analysis.

The final sample size of 279 was deemed sufficient for the correlational and regression procedures used in the study. For multiple regression involving six predictors, the recommended minimum sample size is at least 98 respondents for testing the overall model and at least 110 respondents for examining individual predictors (27). Likewise, G*Power-based criteria for multiple regression, using a medium effect size, $\alpha = 0.05$, statistical power of 0.80, and six predictors, indicate a minimum required sample of approximately 98 participants (28). Accordingly, the obtained sample exceeded the recommended thresholds and provided an adequate statistical basis for analyzing the relationships among the study variables.

Research Instruments

Standardized instruments were employed in the investigation. To measure students' involvement in internet-facilitated academic misconduct, particularly along the subscales of fraudulence, plagiarism, falsification, delinquency, and unauthorized help, the Internet-Triggered Academic Dishonesty Scale (ITADS) was utilized. The instrument also included items that assessed personal and institutional factors perceived to contribute to dishonest academic behavior. Strong psychometric quality has been reported for ITADS, including a Cronbach's alpha of 0.917 and factor-analytic support for its subscale structure (2).

The second instrument was the Epistemological Beliefs Questionnaire (EBQ), a 38-item self-report measure designed to assess students' beliefs about knowledge and learning. The EBQ measures the following dimensions: certainty of knowledge, simplicity of knowledge, acquisition of knowledge, ability or aptitude to learn, speed of learning, and value of learning. Items were assessed on a 5-point Likert scale ranging from 1, or strongly disagree,

to 5, or strongly agree. Acceptable overall reliability has been reported for the EBQ, with a Cronbach's alpha of 0.830 and dimension-level reliability coefficients ranging from 0.609 to 0.766 (11).

Data Collection and Ethical Procedures

Data were gathered through survey administration among eligible undergraduate students who had prior experience using internet-based resources for academic tasks. Ethical clearance was granted by the Cagayan State University Institutional Ethics Review Board under office reference number CSU-IERB-2025-10-263 before data collection. Before participation, the purpose of the study, voluntary nature of involvement, confidentiality safeguards, and right to withdraw were explained. Responses were anonymized and used only for research purposes. The administration procedure was designed to reduce coercion and protect students from being individually identified, especially because academic dishonesty is a sensitive topic.

Data Analysis

Descriptive and inferential statistics were used to analyze the data. Descriptive statistics, including means and standard deviations, were generated for students' epistemological belief profiles, internet-triggered academic dishonesty behaviors, and perceived contributing factors. Before inferential analysis, the dataset was screened for completeness and suitability for the planned statistical procedures.

The association between overall epistemological beliefs and internet-triggered academic dishonesty was assessed using Spearman's rank-order correlation. Spearman's rho was selected because the study used Likert-type scale data and aimed to determine the direction and strength of monotonic relationships among the variables. A correlation matrix was also used to examine bivariate relationships between specific epistemological belief dimensions and academic dishonesty. Finally, multiple linear regression was conducted to identify which epistemological belief dimensions significantly predicted internet-triggered academic dishonesty. The regression model was reported using unstandardized coefficients, standard errors, t-values, p-values, standardized estimates, and model-fit indices.

Results and Discussion

University Students' Epistemological Belief Profile

The students' epistemological belief profile shows a generally developing orientation toward knowledge and learning. The highest mean, as presented in Table 1, was for Acquisition of Knowledge ($\bar{X} = 3.96$, $SD = 0.88$), followed by Certain Knowledge ($\bar{X} = 3.58$, $SD = 0.72$), Value of Learning ($\bar{X} = 3.50$, $SD = 0.64$), Simple Knowledge ($\bar{X} = 3.20$, $SD = 0.41$), Speed of Learning ($\bar{X} = 2.90$, $SD = 0.88$), and Ability to Learn ($\bar{X} = 2.59$, $SD = 0.74$). The overall profile suggests that students tend to view learning as personally constructed, meaningful, and connected to prior knowledge rather than as mere passive reception of information.

Table 1: Means and Standard Deviations of University Students' Epistemological Belief

Dimensions/Indicators	Mean	SD
Dimension 1: Certain Knowledge		
Knowledge that is considered correct today may change tomorrow.	3.73	0.93
What you have learned now will need to be adjusted due to time or other reasons.	3.70	0.87
Knowledge may be modified after a certain period of time.	3.65	0.87
Knowledge is uncertain. It changes over time.	3.43	1.00
What is true today may become false tomorrow.	3.40	0.94
Overall Mean	3.58	0.72
Dimension 2: Simple Knowledge		
The knowledge of each course is closely linked. Most knowledge is broadly linked.	3.50	0.83
Knowledge is closely related to the real world.	3.86	0.88
Each discipline has its own set of knowledge, which has little relation to each other.*	2.23	0.87
Overall Mean	3.20	0.41
Dimension 3: Acquisition of Knowledge		
The key to acquiring knowledge is to study and comprehend by oneself. How much we gain in learning depends on our own initiative.	4.00	0.86
The key to how much students can learn in class is their own understanding of what they have learned.	4.01	0.83
When learning, we should get information with our own way and solve problems through our own understanding.	3.85	0.96
Learning is to accumulate after thinking carefully.	3.89	0.83
For me, reading a book several times will have different experiences and gains.	3.96	0.86
When listening to experts, we should have our own ideas.	3.91	0.84

Dimensions/Indicators	Mean	SD
When learning, we should combine our newly learned knowledge with our existing knowledge.	4.08	0.86
"Learned" means understanding and making it into ours.	3.98	0.85
Overall Mean	3.96	0.88
Dimension 4: Speed of Learning		
When I can't learn something quickly, I will give it up.*	3.08	1.21
I can never solve the problem, which I think cannot be solved at first time.*	2.97	1.12
Knowledge that cannot be understood quickly may not be understood well in the future.*	2.95	1.14
It is a waste of time to delve into problems for which definite answers are impossible to obtain.*	3.00	1.09
It takes a long time to solve difficult problems, and only truly intelligent people will be rewarded.*	2.93	1.06
Facing new things, I know whether I can learn well or not in the first few minutes.*	2.48	0.86
Overall Mean	2.90	0.88
Dimension 5: Ability to Learn		
Ability is innate, no matter how hard you try, it is difficult to change.*	2.67	1.00
Students who learn well are naturally more intelligent.*	2.38	0.92
Some people are born with strong learning abilities, while others have limited learning abilities.*	2.36	0.96
Students who are really smart will get good grades even without working hard.*	2.75	1.07
The potential for learning is inherent.*	2.60	0.85
Some people are born smart, while others are born retarded.*	2.75	0.98
Overall Mean	2.59	0.74
Dimension 6: Value of Learning		
Learning is fun and enjoyable.	4.01	0.88
I believe that knowledge changes destiny.	3.24	1.07
Reading is a pleasant thing for me.	3.72	0.89
I can often feel happy in my learning.	3.68	0.86
I enjoy doing research.	3.36	0.82
I am willing to delve into things that I do not understand.	2.99	1.04
Overall Mean	3.50	0.64

Note: $\bar{X}$ = mean; SD = standard deviation. Items marked with an asterisk (*) are reverse-coded items.

The high mean for Acquisition of Knowledge indicates that students recognize the importance of self-directed understanding, reflection, and integration of new information with prior knowledge. The moderate scores for Certain Knowledge and Simple Knowledge further suggest that students have some awareness that knowledge may change over time and that ideas are connected across disciplines and real-life contexts. These beliefs are important in higher education because students who see knowledge as evolving and interconnected are more likely to engage critically with information rather than merely reproduce available answers (11).

However, the lower means for Speed of Learning and Ability to Learn point to an uneven epistemological profile. Some students may still associate learning with quick comprehension or natural ability, particularly when tasks become difficult or time-consuming. This pattern matters because students who expect learning to be immediate may become more vulnerable to academic shortcuts when faced with complex requirements, deadlines, or digital tools that provide instant answers. Thus, while the respondents generally value learning and personal knowledge construction, their beliefs about effort, persistence, and gradual mastery still require instructional support.

These findings imply that university programs should strengthen not only academic competence but also epistemic maturity. Inquiry-based learning, reflective activities, research-oriented tasks, and authentic assessments may further develop students' understanding of knowledge as constructed and evolving. At the same time, academic support programs should address persistence, self-regulated learning, and growth-oriented study habits, particularly for students who may interpret difficulty as evidence of inability.

University Students' Engagement in Internet-triggered Academic Dishonesty Behaviors

Table 2 presents students' self-reported engagement in internet-facilitated academic dishonesty. The overall mean of 2.08 (SD = 0.95) indicates generally low to modest engagement in dishonest online academic behaviors. Among the five subscales, Delinquency obtained the highest composite mean ($\bar{X}$ = 2.24, SD = 1.13), followed by Unauthorized Help ($\bar{X}$ = 2.16, SD = 1.16), Falsification ($\bar{X}$ = 2.10, SD = 1.16), Plagiarism ($\bar{X}$ = 2.09, SD = 1.15), and Fraudulence ($\bar{X}$ = 1.82, SD = 1.12). This pattern suggests that students were less inclined toward deliberate and severe forms of deception but were more susceptible to everyday, routine, and collaborative forms of academic misconduct.

Table 2: Descriptive Statistics of Students' Internet-Facilitated Academic Dishonesty Behaviors

Subscales / Indicators	Mean	SD
Subscale 1: Fraudulence		
Sabotaging other people's academic works through the Internet	1.89	1.15
Selling an individual project on the Internet	1.64	1.09
Publishing other people's studies on the Internet without the author's permission	1.70	1.12
Adding the names of non-contributing people as authors	1.75	1.11
Claiming to have used materials and references that were not actually used	1.81	1.12
Claiming to have conducted research that was not done	1.77	1.12
Translating Internet resources and claiming personal authorship	1.92	1.15
Fabricating information	1.88	1.11
Deliberately providing wrong references	1.79	1.14
Providing references at the wrong place in an assignment	1.81	1.11
Altering an Internet resource to favor a personal point of view	2.02	1.12
Composite Mean	1.82	1.12
Subscale 2: Plagiarism		
Using entire works from the Internet for personal assignments without acknowledging the author	2.03	1.14
Using important parts of other people's works on the Internet without acknowledging the author	2.06	1.15
Combining several Internet resources in an assignment without acknowledging authors	2.12	1.18
Copying others' work from the Internet without permission	2.16	1.15
Using Internet quotations in personal assignments without quotation marks	2.09	1.14
Composite Mean	2.09	1.15
Subscale 3: Falsification		
Changing the contents of Internet resources while citing and attributing ideas to the author	2.16	1.18
Manipulating scientific information on the Internet through personal comments	1.94	1.16
Paraphrasing an Internet resource in a way that harms the integrity of the original idea	2.21	1.15
Composite Mean	2.10	1.16
Subscale 4: Delinquency		
Using the same materials in different courses	2.12	1.14
Over-citing Internet resources	2.13	1.08
Making spelling mistakes	2.32	1.12
Doing friends' assignments using the Internet	2.38	1.16
Composite Mean	2.24	1.13
Subscale 5: Unauthorized Help		
Renting or buying a previously completed assignment through the Internet	1.77	1.13
Doing an individual assignment with a group using Internet resources such as forums, chat rooms, and blogs	2.43	1.19
Having others do individual assignments	2.29	1.17
Composite Mean	2.16	1.16
Overall Mean	2.08	0.95

Fraudulence had the lowest mean, indicating that behaviors such as selling projects online, fabricating information, sabotaging others' academic work, or claiming research that was not actually conducted were not commonly reported. This finding suggests that overt academic fraud may not be the dominant issue among the respondents. However, the relatively higher scores in Delinquency and Unauthorized Help reveal a subtler concern: questionable practices may be perceived as minor, convenient, or socially acceptable when they are embedded in ordinary online academic routines.

The highest item in the entire table was doing an individual assignment with a group using internet resources such as forums, chat rooms, and blogs ($\bar{X} = 2.43$, $SD = 1.19$), followed by doing friends' assignments using the internet ($\bar{X} = 2.38$, $SD = 1.16$). These results suggest that students may have difficulty distinguishing acceptable

collaboration from unauthorized assistance. This aligns with contemporary academic integrity discussions showing that online environments can blur boundaries between cooperation, outsourcing, and misconduct, particularly when institutional expectations are unclear (3,21).

Plagiarism and falsification also deserve attention despite their modest means. The findings indicate that students may misuse online sources by copying, combining materials without acknowledgment, or paraphrasing in ways that distort the original meaning. Internet-triggered dishonesty includes not only direct copying but also misrepresentation, manipulation, and improper source use (2). In the current digital context, where paraphrasing tools and generative AI applications can easily transform text, stronger guidance is needed on citation ethics, responsible paraphrasing, and accurate representation of sources (1,4).

Overall, the results suggest that the problem is not a widespread culture of serious fraud but a pattern of low-level integrity risks made easier by digital access. Universities should therefore complement sanctions with preventive and educative strategies, including citation workshops, writing support, clear collaboration rules, AI-use guidelines, and process-based assessments. These interventions can help students understand academic integrity not only as a policy requirement but also as a habit of responsible scholarship.

Factors Contributing to Internet-Triggered Academic Dishonesty

Table 3 shows that students perceived both personal and institutional factors as contributors to internet-triggered academic dishonesty. Personal factors obtained a higher overall mean ($\bar{X} = 2.92$, $SD = 0.90$) than institutional policies ($\bar{X} = 2.76$, $SD = 0.90$), suggesting that students viewed dishonest behavior as more strongly influenced by academic pressure, time constraints, and personal circumstances than by institutional rules alone.

Table 3: University Students' Perceptions of Personal and Institutional Factors Contributing to Internet-Triggered Academic Dishonesty

Factors	Items	Mean	SD
Personal Factors	"Boring assignments"	2.77	0.90
	"Teachers' inclination to give a lot of assignments"	3.07	0.81
	"Doing assignments in a hurry"	3.30	0.86
	"Thinking that assignments will not help me personally and professionally"	2.40	0.95
	"Being very busy and having no time"	2.92	0.92
	"Uninteresting assignments"	2.65	0.94
	"Getting higher grades"	3.47	0.90
	"Having a very loaded social life"	3.03	0.88
	"Feeling incompetent on the subject matter"	2.98	0.88
	"Not appreciating the quality of personal works"	2.61	0.94
	Overall Mean	2.92	0.90
Institutional Policies	"Non-existence of sanctions regarding academic misconduct"	2.76	0.85
	"Internet's encouraging and facilitating misconduct"	2.86	0.92
	"Teachers' turning a blind eye towards academic misconduct"	2.71	0.93
	"Insufficient penalties"	2.72	0.91
	Overall Mean	2.76	0.90

Among the personal factors, getting higher grades received the highest mean ($\bar{X} = 3.47$, $SD = 0.90$), followed by doing assignments in a hurry ($\bar{X} = 3.30$, $SD = 0.86$), teachers' inclination to give many assignments ($\bar{X} = 3.07$, $SD = 0.81$), having a loaded social life ($\bar{X} = 3.03$, $SD = 0.88$), and feeling incompetent in the subject matter ($\bar{X} = 2.98$, $SD = 0.88$). These findings suggest that students may become more vulnerable to dishonest online practices when they experience performance pressure, heavy workload, weak preparation, or poor time management. This supports earlier findings that grade pressure, procrastination, and limited time-management skills are common contributors to academic misconduct (15,16).

Institutional factors also remain relevant. The highest institutional item was the internet's role in encouraging and facilitating misconduct ($\bar{X} = 2.86$, $SD = 0.92$), followed by the non-existence of sanctions ($\bar{X} = 2.76$, $SD = 0.85$), insufficient penalties ($\bar{X} = 2.72$, $SD = 0.91$), and teachers' tendency to ignore misconduct ($\bar{X} = 2.71$, $SD = 0.93$). These results suggest that digital convenience, weak enforcement, and inconsistent faculty response may contribute to the normalization of academic dishonesty. A balanced approach to academic integrity requires clear policy, institutional commitment, and active implementation rather than policy presence alone (17-19).

The findings indicate that internet-triggered academic dishonesty is shaped by both individual pressure and institutional climate. Students may initially attribute misconduct to academic demands and personal struggles, but these behaviors occur within systems that may either prevent or unintentionally enable dishonest practices. Universities should therefore adopt a dual response: strengthen student support while ensuring clear, consistent, and educative academic integrity policies. Practical interventions may include workload-sensitive assessment

planning, academic writing support, responsible internet-use training, AI-use guidelines, and faculty development on assessment design.

Relationship between Students' Epistemological Beliefs and Their Propensity for Academic Dishonesty in Online Contexts

Table 4 shows that students' epistemological beliefs were significantly and negatively correlated with internet-triggered academic dishonesty ($\rho = -0.196$, $df = 277$, $p = 0.001$). Although the relationship was weak, its statistical significance indicates that students with more developed beliefs about knowledge and learning tended to report lower engagement in dishonest online academic behaviors. This suggests that students' understanding of learning may influence whether they approach academic tasks as opportunities for knowledge construction or as requirements to be completed through shortcuts.

Table 4: Spearman Correlation Between Students' Epistemological Beliefs and Internet-Triggered Academic Dishonesty

Variable	ρ (Spearman)	df	p-value
Epistemological Beliefs	-0.196	277	.001 **

Note: ρ = Spearman's rho; df = degrees of freedom; ** $p < .01$.

The correlation matrix further shows that Speed of Learning had the strongest negative association with internet-triggered academic dishonesty ($\rho = -0.27$), followed by Ability to Learn ($\rho = -0.20$). These results imply that students who are less likely to believe that learning must happen quickly, and those who are less inclined to view learning ability as fixed, may be less vulnerable to dishonest online practices. Meanwhile, Certainty, Simplicity, and Acquisition showed very weak associations, while Value of Learning showed a weak positive association ($\rho = 0.12$). This pattern suggests that beliefs about the process of learning may be more closely related to academic integrity than general beliefs about the structure or certainty of knowledge.

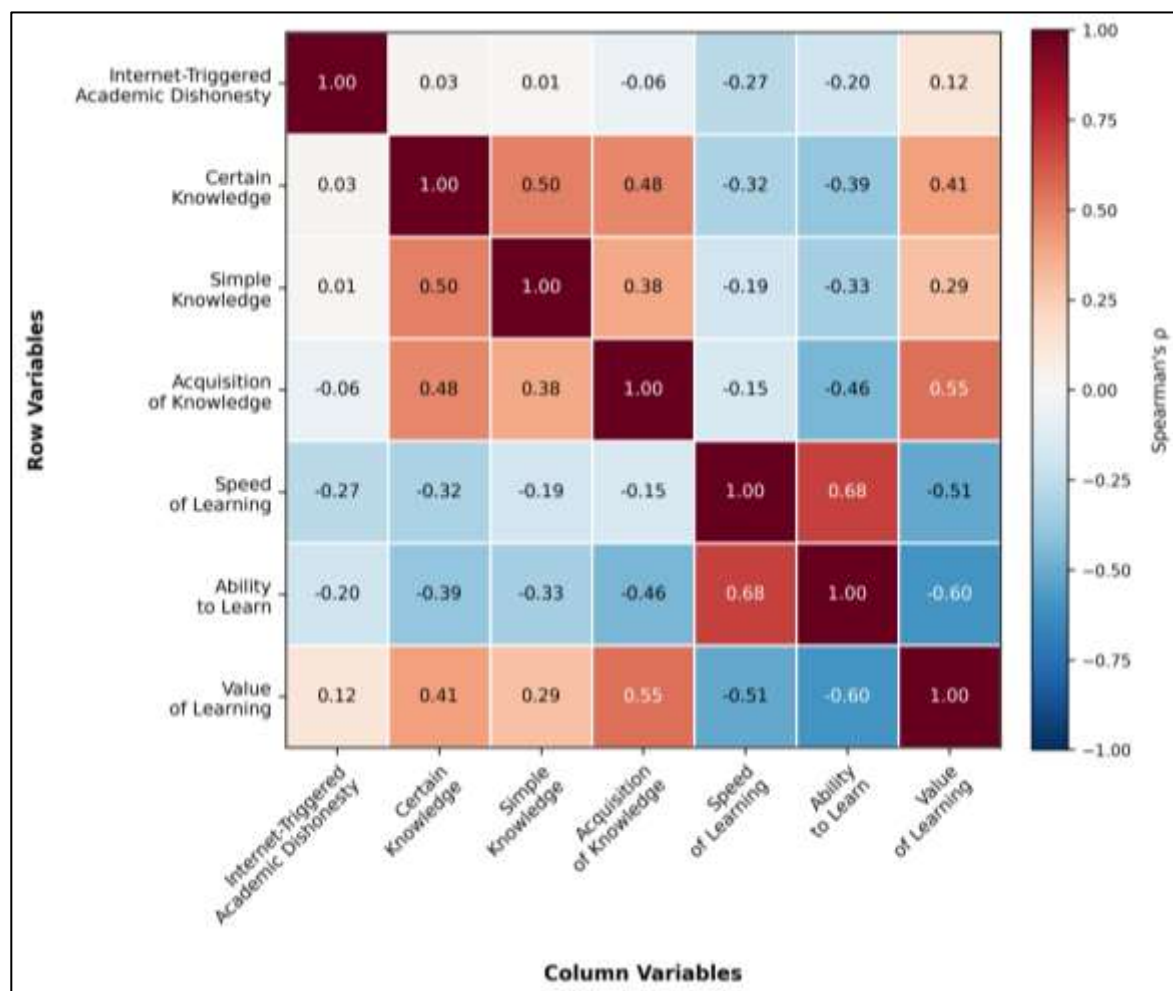


Figure 2: Correlation Matrix of Internet-Triggered Academic Dishonesty and Epistemological Belief Dimensions

The result is consistent with evidence showing that students' epistemic assumptions regarding online knowledge are associated with self-regulated learning and academic misconduct (12). However, the weak correlation also suggests that epistemological beliefs should not be treated as the sole explanation for dishonest behavior. Academic dishonesty is a multidimensional issue shaped by student motivation, assessment design, peer norms, institutional expectations, digital access, and policy enforcement (3,20). Thus, the result should be interpreted as evidence that epistemological beliefs form one modest but meaningful part of a broader academic integrity system.

These findings imply that academic integrity programs should not focus only on detecting violations. They should also help students reflect on how knowledge is created, evaluated, cited, and ethically used. Modules on digital literacy, citation practice, responsible collaboration, AI-assisted work, and reflective learning may help students develop both technical competence and ethical judgment.

Predictive Role of Epistemological Beliefs in Internet-Facilitated Academic Dishonesty

Extending the correlational findings presented in Table 4 and Figure 2, multiple regression analysis was conducted to determine which epistemological belief dimensions uniquely predicted internet-triggered academic dishonesty when considered simultaneously. This step refined the analysis by determining whether each belief dimension contributed uniquely to dishonest behavior beyond the effects of the other dimensions.

As displayed in the combined regression model in Table 5, the entire model was statistically significant, $F(6, 272) = 6.98$, $p < .001$, with $R = .365$ and $R^2 = .133$. This indicates that epistemological beliefs collectively explain 13.3% of the variance in internet-triggered academic dishonesty. Although the effect size is modest, it is consistent with established literature emphasizing that academic dishonesty is multidetermined and shaped by both cognitive-belief structures and contextual academic pressures (3,20).

Table 5: Regression Coefficients and Model Fit for Epistemological Beliefs Predicting Internet-Triggered Academic Dishonesty

Predictor	Estimate (b)	SE	t	p	B
Intercept	3.939	0.741	5.318	<.001	-
Certain	0.001	0.099	0.014	.989	0.001
Simple	0.095	0.154	0.616	.538	0.041
Acquisition	-0.344	0.111	-3.100	.002	-0.255
Speed	-0.264	0.097	-2.736	.007	-0.244
Ability to Learn	-0.150	0.124	-1.212	.227	-0.116
Value of Learning	0.100	0.130	0.768	.443	0.067

Note: b = unstandardized coefficient; SE = standard error; β = standardized coefficient; R^2 = coefficient of determination; RMSE = root mean square error. Model Fit: $R = .365$, $R^2 = .133$, RMSE = 0.885, $F(6, 272) = 6.98$, $p < .001$.

Among the six epistemological dimensions, only Acquisition of Knowledge and Speed of Learning emerged as significant predictors. Acquisition of Knowledge negatively predicted internet-triggered academic dishonesty ($\beta = -0.255$, $p = .002$), indicating that students who perceive learning as an active, self-constructed, and integrative process are less likely to commit internet-facilitated misconduct. This finding reinforces the importance of epistemological sophistication, particularly beliefs related to knowledge construction, in supporting deeper cognitive engagement and responsible learning behaviors (11).

Similarly, Speed of Learning significantly predicted academic dishonesty in a negative direction ($\beta = -0.244$, $p = .007$). This finding suggests that students who recognize learning as gradual rather than immediate tend to exhibit lower tendencies toward dishonest academic practices. This pattern agrees with recent findings showing that unrealistic expectations about learning speed often contribute to surface learning strategies and shortcut behaviors, especially in digital environments where answers are readily accessible (15,16).

When situated alongside the correlational results in Table 4 and the pattern visualized in Figure 2, these findings further clarify that it is not general epistemological orientations that drive academic dishonesty, but rather process-oriented beliefs about how knowledge is acquired and how learning unfolds over time. In particular, the stronger negative association observed for Speed of Learning ($\rho = -0.27$) in the correlation matrix is reinforced at the predictive level, suggesting a stable relationship across analytical stages.

In contrast, Certain Knowledge, Simple Knowledge, Ability to Learn, and Value of Learning did not significantly predict internet-triggered academic dishonesty when included in the model. This indicates that while these dimensions are conceptually relevant, their effects may be indirect or mediated by more process-centered beliefs. Similar interpretations have been observed in research where epistemic beliefs were linked to academic misconduct through self-regulated learning mechanisms rather than through direct behavioral prediction alone (12).

The overall modest explanatory power of the model reinforces the multidimensional nature of academic dishonesty. Online misconduct is also shaped by workload pressure, assessment design, institutional monitoring,

AI accessibility, and the perceived ease of manipulating digital sources (1,4,5). Thus, epistemological beliefs should be understood as one contributory layer within a broader ecological system of academic behavior rather than as a standalone determinant.

Conclusion

This study concludes that internet-triggered academic dishonesty among the university students was generally low to modest, yet its presence remains academically meaningful because the most reported behaviors were those that easily become normalized in digital learning environments. Rather than showing a strong tendency toward deliberate fraud, the findings revealed greater susceptibility to everyday integrity concerns such as improper use of online sources, distorted paraphrasing, unauthorized collaboration, repeated use of materials, and hurried completion of academic work. This suggests that academic dishonesty in the digital age is often less visible, more convenient, and more closely tied to students' academic habits, workload pressures, and uncertainty about the ethical boundaries of online assistance.

The results further show that students generally held developing epistemological beliefs, particularly in recognizing learning as valuable, personally constructed, and connected to real-life contexts. However, less developed views on the speed of learning and learning ability suggest that some students may still struggle with persistence when academic tasks become difficult or time-consuming. This is significant because students who understand learning as gradual and effortful appear less likely to rely on dishonest online shortcuts.

Overall, epistemological beliefs were significantly and negatively related to internet-triggered academic dishonesty. Specifically, acquisition of knowledge and speed of learning emerged as significant predictors, indicating that students who value meaningful understanding and recognize that learning takes time tend to report lower dishonest behavior. Thus, academic integrity in the digital age should be addressed not only through sanctions but also through programs that strengthen students' ethical judgment, academic resilience, responsible use of digital tools, and ownership of learning. Universities should therefore promote clear integrity policies, responsible AI and internet-use guidelines, process-based assessments, and learning environments that make honesty a sustained academic value rather than a mere institutional requirement.

Abbreviations

EBQ: Epistemological Beliefs Questionnaire, ITADS: Internet-Triggered Academic Dishonesty Scale

Acknowledgement

The author extends deep appreciation to the Cagayan State University-Carig Campus and all student-respondents for their invaluable support, participation and insightful feedback which made this research meaningful.

Author Contributions

The sole author, **Jona Addatu-Cambri**, contributed to the development and refinement of the study, including input on the research direction, methodological considerations, interpretation of findings, manuscript preparation, revision, and approval of the final version for submission.

Conflict of Interest

The author declares that there is no conflict of interest in the publication of this paper.

Data Availability

The datasets generated and analyzed during the current study are available from the corresponding author upon reasonable request, subject to institutional ethical restrictions and confidentiality safeguards.

Declaration of Artificial Intelligence (AI) Assistance

Artificial intelligence-assisted technologies were used only to support language refinement, grammar correction, readability improvement, formatting consistency, and reference-style checking. No AI tool was used to generate the dataset, perform the statistical analysis, replace authorial judgment, or determine the study findings. The author critically reviewed, verified, and finalized all manuscript content and accepts full responsibility for its accuracy, integrity, and academic rigor.

Ethics Approval and Consent to Participate

The research was carried out in conformity with the ethical standards of Cagayan State University (CSU) and applicable national rules for research involving human participants. Ethical clearance was obtained from the Cagayan State University Institutional Ethics Review Board under office reference number CSU-IERB-2025-10-263. Participation of university students in the survey was entirely voluntary. All respondents were fully informed of the purpose of the study, procedures, and their rights, including the opportunity to withdraw at any moment without penalty. Written informed consent/assent was obtained from each participant before data collection, and all responses were anonymized to ensure confidentiality and protect participants' identities.

Funding

This study received an institutional grant from Cagayan State University (CSU).

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