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BRIDGING AI AND PSYCHOLOGICAL MOTIVATION: FACULTY UTILIZATION OF LEARNING TOOLS TO SUPPORT COLLEGE STUDENT SUCCESS

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Abstract
This study examined the relationship between faculty utilization of AI-powered learning tools and their impact on college students' psychological motivation, emotional well-being, and academic success in higher education institutions in Metro Manila. Data were collected from 63 randomly selected faculty members across various disciplines through a structured questionnaire validated by experts. Reliability analyses showed excellent internal consistency for scales measuring psychological motivation, emotional well-being, and academic success. The findings revealed that faculty generally held neutral perceptions regarding the effectiveness of AI tools in supporting students' motivation, emotional health, and academic performance. Despite this, statistically significant positive correlations were found among the three student outcome variables, indicating that AI utilization was associated with improved student outcomes. Furthermore, demographic factors significantly influenced students' emotional well-being and academic success but did not affect psychological motivation. The study concluded that while faculty moderately used AI tools, these technologies contributed positively to students' educational and emotional development. Recommendations included enhancing faculty training for AI integration and promoting inclusive practices responsive to student diversity.
Keywords: Psychological motivation, AI, Learning Tools

INTRODUCTION

In the evolving landscape of education, artificial intelligence (AI) has become a transformative tool for enhancing learning experiences. The integration of AI-powered learning tools offers faculty members innovative ways to support students' academic achievement while addressing their psychological motivation. However, there is limited understanding of how these tools impact students' intrinsic and extrinsic motivation, emotional well-being, and overall success.

This study seeks to explore the relationship between faculty utilization of AI-driven learning tools and their influence on students' psychological motivation and academic performance. By investigating these dynamics, the research aims to bridge the gap between AI implementation in education and its role in fostering both academic success and psychological growth.

Statement of the Problem

The study aims to answer the following questions:

1. What is the demographic profile of the respondents in terms of:
1.1 Age
1.2 Gender
1.3 Subject taught
2. How do faculties utilize AI-powered learning tools to support:
2.1 Students' psychological motivation
2.2 Students' emotional well-being
2.3 Students' academic success
3. Is there a significant relationship between faculty utilization of AI tools and students' psychological motivation, students' emotional well-being and students' academic success?

4. Are there significant differences in the levels of students' psychological motivation, emotional well-being and academic success based on their demographic profiles?

METHODOLOGY

This study adopted a quantitative research approach to examine the relationship between faculty utilization of AI-powered learning tools and their impact on students' psychological motivation, emotional well-being, and academic performance. A structured survey questionnaire was developed and administered to gather data.
To ensure the instrument's reliability, a test-retest method was conducted, with the survey distributed twice to the same group of participants over a two-week interval. This approach allowed the researchers to assess the consistency and stability of responses, ensuring that the collected data was both accurate and dependable for statistical analysis.

Respondents

The respondents of the study consisted of 63 college faculty members teaching across various higher education institutions in Metro Manila. Participants were selected through random sampling to capture a broad and diverse set of experiences, subject specializations, and instructional practices involving AI tools. The faculty members represented a range of academic disciplines, which helped in understanding how AI learning tools are being used across different fields to support student motivation and performance.

Instruments Used

The study employed a structured questionnaire composed of four main sections:
a. Demographic Profile – Collected data on respondents' age, gender, and subjects taught.
b. Faculty Utilization of AI Tools – Measured the extent and manner of AI integration in their teaching practices.
c. Student Psychological Motivation and Emotional Well-being – Assessed how faculty-perceived AI use affects student mindset and emotional state.
d. Student Academic Success – Evaluated faculty perceptions of how AI-supported instruction contributes to students' academic performance.
Each section utilized Likert-scale items ranging from 1 ("Strongly Disagree") to 5 ("Strongly Agree"). The questionnaire underwent expert validation by two licensed psychologists and one certified psychometrician to ensure content validity, clarity, and cultural appropriateness for the Filipino higher education context.

Ethical Considerations

Ethical protocols were rigorously followed throughout the study. Participants were provided with a detailed explanation of the research objectives and procedures and were required to sign informed consent forms before data collection. Participation was strictly voluntary, and respondents retained the right to withdraw at any point without consequence.
To ensure confidentiality, no personal identifiers were collected, and all data was securely stored and accessible only to the researchers. The study design and research instruments were reviewed and approved by a panel of ethics reviewers to guarantee compliance with standards for responsible research conduct, particularly in matters involving human subjects and psychological measures.

RESULTS AND DISCUSSIONS

Table 1. Age of the Respondents

Age		Frequency	Percent
Valid	31-35	8	12.7
	36-40	15	23.8
	Above 41	40	63.5
	Total	**63**	**100.0**

The majority of respondents (63.5%) were faculty members aged above 41, indicating a predominance of experienced educator's likely familiar with traditional teaching methods. The 36–40 age group represented 23.8%, while the 31–35 group accounted for only 12.7%, suggesting underrepresentation of younger faculty. These findings support research showing that older educators tend to adopt AI tools cautiously, aligning them with established practices (Zawacki-Richter et al., 2020; König et al., 2021). Conversely, although younger educators are typically more open to new technologies, their effective use still depends on institutional support and training (Trust et al., 2021).

Table 2. Sex of the Respondents

Sex		Frequency	Percent
Valid	Female	41	65.1
	Male	22	34.9
	Total	**63**	**100.0**

The study revealed that female faculty members (65.1%) outnumbered male faculty (34.9%), indicating greater female representation in AI-integrated teaching roles. This trend aligns with global observations of women's increasing involvement in student-centered, innovative teaching practices (UNESCO, 2021). While female educators may show more engagement in integrating AI to support student well-being and motivation, ensuring balanced representation remains essential for inclusive educational development (Anderson & Perrachione, 2020).

Table 3. Subject taught of the Respondents

Subject taught		Frequency	Percent
Valid	Biology	1	1.6
	Business subjects	4	6.3
	Chemistry	1	1.6
	Education subjects	3	4.8
	Engineering subjects	5	7.9
	Ethics	7	11.1
	Math	3	4.8
	Medical subjects	6	9.5
	Nursing	5	7.9
	Physics	1	1.6
	Political Science	2	3.2
	Psychology	19	30.2
	Religion	6	9.5
	Total	**63**	**100.0**

The study found that Psychology faculty made up the largest group (30.2%), reflecting a strong alignment with the study's focus on student motivation and well-being. Other well-represented fields included Ethics, Medical Subjects, and Religion, indicating a multidisciplinary interest in the role of AI in education. However, subjects like Biology, Chemistry, and Physics were underrepresented, suggesting a potential gap in AI integration across the natural sciences. These results are consistent with recent findings that AI in education tends to be more actively adopted in the social sciences and humanities, where student-centered approaches are emphasized (Zawacki-Richter et al., 2020; Chen et al., 2021).

Table 5. Reliability Analysis of Instruments

Scale: Student Psychological Motivation Scale

Case Processing Summary

		N	%
Cases	Valid	63	100.0
	Excluded[a]	0	.0
	Total	63	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.965	10

The Student Psychological Motivation Scale demonstrated excellent reliability with a Cronbach's alpha of 0.965 across 10 items. This high internal consistency indicates that the scale effectively measures the intended construct and is suitable for use in further analyses involving student motivation in AI-enhanced learning environments.

Scale: Student Emotional Well-being Scale

Case Processing Summary

		N	%
Cases	Valid	63	100.0
	Excluded[a]	0	.0
	Total	63	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.975	10

The Student Emotional Well-being Scale yielded a Cronbach's alpha of 0.975, indicating excellent internal consistency across its 10 items. This suggests the instrument is highly reliable for assessing emotional well-being in the context of faculty-supported AI learning environments.

Scale: Student Academic Success Scale

Case Processing Summary

		N	%
Cases	Valid	63	100.0
	Excluded[a]	0	.0
	Total	63	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.977	10

The Student Academic Success Scale showed excellent internal consistency with a Cronbach's alpha of 0.977 across 10 items. This demonstrates the scale's strong reliability for assessing academic success in studies exploring the educational impact of AI tools.

Table 6. Faculty's utilization in AI-Powered Learning tools in Students' psychological motivation

Psychological Motivation	Mean	Verbal Interpretation
1. Teachers use AI-powered tools to give students feedback in real time, which boosts their confidence in their skills	2.8889	Neutral
2. AI tools are built in to create learning experiences that fit the hobbies and goals of each student	3.1270	Neutral

3. Teachers use AI tools to track and reward students' progress, which encourages students to be self-motivated	3.2540	Neutral
4. Tools with AI are used to set personalized learning goals for each student, which helps them stay on track and keep them encouraged	3.0635	Neutral
5. Teachers use AI tools to add game-like features to lessons to keep students interested and motivated	3.1746	Neutral
6. Tools that are driven by AI help teachers figure out which students aren't motivated and give them specific help	2.9841	Neutral
7. Teachers use AI to make self-paced learning options that encourage students to be independent and driven	3.3333	Neutral
8. Reminders and positive feedback are sent to students through AI platforms, which helps them stick to their goals	3.1429	Neutral
9. Teachers use AI tools to find and help students with problems that are impeding their drive	2.9365	Neutral
10. Tools that are driven by AI give teacher's information that helps learning them get students to take charge of their own	3.0159	Neutral
Total	**3.09207**	**Neutral**

Legend: 1.00 and 1.49 (Strongly Disagree), 1.50 to 2.49 (Disagree), 2.50 and 3.49 (Neutral), 3.50 to 4.49 (Agree) and 4.50 and 5.00 (Strongly Agree).

Table 6 showed that faculty had a neutral perception of using AI-powered learning tools to enhance students' psychological motivation, with an overall mean of 3.09. All ten items were rated within the "Neutral" range (2.50–3.49), indicating moderate use and effectiveness. The highest-rated item involved using AI for self-paced learning (M = 3.33), while the lowest was about using AI for real-time feedback to boost confidence (M = 2.89). These results suggested that while AI tools were being used, their impact on student motivation was not strongly affirmed, possibly due to limited utilization or lack of training.

Table 7. Faculty's utilization in AI-Powered Learning tools in Students' emotional well-being

Emotional well-being	**Mean**	**Verbal Interpretation**
1. Teachers use AI tools to keep an eye on their students' stress levels and help them find healthy ways to deal with it	3.0952	Neutral
2. Tools that are powered by AI are used to spot signs of mental distress and suggest the best ways to help	3.0159	Neutral
3. Teachers use AI tools to create safe spaces that put students' emotional needs first	3.0159	Neutral
4. Tools that use AI are used to make mental health resources and ideas more relevant to each student	3.1746	Neutral
5. Teachers use tools that are powered by AI to help students and counselors talk to each other better	3.1746	Neutral
6. AI platforms are used to give students good feedback that makes them stronger emotionally	2.7778	Neutral

7. Teachers use AI tools to see trends in how engaged their students are and figure out which ones might be feeling too much	3.1746	Neutral
8. Platforms driven by AI let teachers set flexible due dates, which takes pressure off of students without needing it	3.1905	Neutral
9. Teachers use AI tools to help set up peer support systems that are good for mental health	3.2857	Neutral
10. AI systems help teachers make sure that everyone has a chance to participate, which promotes inclusivity and mental safety in the classroom	2.9683	Neutral
Total	**3.08731**	**Neutral**

Legend: 1.00 and 1.49 (Strongly Disagree), 1.50 to 2.49 (Disagree), 2.50 and 3.49 (Neutral), 3.50 to 4.49 (Agree) and 4.50 and 5.00 (Strongly Agree).

Table 7 showed that faculty had a neutral perception of using AI-powered tools to support students' emotional well-being, with an overall mean of 3.09. All items fell within the "Neutral" range, indicating moderate use. The highest-rated item was using AI to set up peer support systems (M = 3.29), while the lowest was providing emotionally supportive feedback (M = 2.78). These results suggest that while AI tools are used in some areas of emotional support, their overall impact is perceived as limited.

Table 8. Faculty's utilization in AI-Powered Learning tools in Students' academic success

Academic Success	**Mean**	**Verbal Interpretation**
1. Teachers use AI-powered tools to make personalized lesson plans that meet the needs of each student	3.0159	Neutral
2. AI systems give teachers data-driven insights that help them tailor their lessons to each student	3.1746	Neutral
3. Teachers use AI tools to suggest extra resources for students who are having trouble with certain subjects	3.2540	Neutral
4. Tools that are driven by AI are used to track and guess how well students will do in school over time	2.8571	Neutral
5. Teachers use AI systems to give students immediate feedback on their work, which helps them keep getting better	3.1905	Neutral
6. AI tools help teachers keep track of students' attendance and participation, which helps them deal with problems that could come up in school	3.3016	Neutral
7. Teachers use AI to make practice tests that are specific to the areas where students need to better	3.0635	Neutral
8. Platforms driven by AI help teachers find students who are at risk and help them with their work when it's most needed	3.2063	Neutral
9. Teachers who use AI tools to speed up marking can spend more time helping students directly	2.9524	Neutral
10. AI systems give students real-time information about how well they are learning, which helps them take steps to get better	3.0952	Neutral
Total	**3.1111**	**Neutral**

Legend: 1.00 and 1.49 (Strongly Disagree), 1.50 to 2.49 (Disagree), 2.50 and 3.49 (Neutral), 3.50 to 4.49 (Agree) and 4.50 and 5.00 (Strongly Agree).

Table 8 indicated a neutral perception among faculty regarding the use of AI-powered tools for enhancing students' academic success, with an overall mean of 3.11. The highest-rated item involved tracking attendance and participation (M = 3.30), while the lowest was predicting academic performance (M = 2.86). These results suggest that AI tools are moderately used in supporting academic outcomes, but their effectiveness is not strongly recognized by faculty.

Table 9. Significant relationship between faculty utilization of AI tools and students' psychological motivation, students' emotional well-being and students' academic success

Correlations				
		Students' Psychological Motivation	Students' Emotional Well-being	Students' academic success
Students' Psychological Motivation	Pearson Correlation	1	.600**	.783**
	Sig. (2-tailed)		.000	.000
	N	63	63	63
Students' Emotional Well-being	Pearson Correlation	.600**	1	.914**
	Sig. (2-tailed)	.000		.000
	N	63	63	63
Students' academic success	Pearson Correlation	.783**	.914**	1
	Sig. (2-tailed)	.000	.000	
	N	63	63	63
**. Correlation is significant at the 0.05 level (2-tailed).				

Table 9 showed that there were significant positive relationships between faculty utilization of AI tools and students' psychological motivation, emotional well-being, and academic success. The strongest correlation was found between students' emotional well-being and academic success ($r = .914$, $p < .001$), indicating a very strong and statistically significant relationship. A similarly strong correlation was observed between psychological motivation and academic success ($r = .783$, $p < .001$), suggesting that as students became more motivated, their academic performance tended to improve. Additionally, a moderate to strong correlation was found between psychological motivation and emotional well-being ($r = .600$, $p < .001$), implying that students who were more psychologically motivated were also more likely to experience emotional well-being. These findings indicated that faculty use of AI tools was significantly associated with positive outcomes in students' motivation, emotional health, and academic performance.

Table 10. Significant differences in the levels of students' psychological motivation, emotional well-being and academic success based on their demographic profiles

Variable	**p-value**	**Significant?**	**Interpretation**
Students' Psychological Motivation	0.868	No	No significant difference between groups
Students' Emotional Well-being	0.000	Yes	Significant difference in emotional well-being

Variable	p-value	Significant?	Interpretation
Students' Academic Success	0.000	Yes	Significant difference tin academic success

The analysis showed that there were significant differences in students' emotional well-being and academic success based on their demographic profiles, as indicated by p-values of 0.000 for both variables. This suggested that demographic factors played a meaningful role in influencing students' emotional and academic outcomes. In contrast, no significant difference was found in psychological motivation ($p = 0.868$), indicating that students' motivation levels remained relatively consistent regardless of their demographic background. These results highlighted the importance of considering demographic differences when addressing students' emotional and academic needs.

SUMMARY

This study explored the relationship between faculty utilization of AI-powered learning tools and their impact on students' psychological motivation, emotional well-being, and academic success in various higher education institutions in Metro Manila. A total of 63 college faculty members participated, with the majority aged over 41 and predominantly female. Psychology was the most represented discipline. Using a structured questionnaire, the study assessed faculty perceptions of how AI tools supported students in three key areas: psychological motivation, emotional well-being, and academic performance. Reliability analysis of the research instruments revealed excellent internal consistency across all scales used. The findings showed that faculty members generally held neutral views regarding the effectiveness of AI tools in supporting students' motivation, emotional health, and academic outcomes. However, statistically significant positive correlations were found among the three student outcome variables. Moreover, significant differences in emotional well-being and academic success emerged across demographic profiles, while psychological motivation showed no such differences.

CONCLUSIONS

The findings indicated that faculty members utilized AI-powered tools in a moderate or neutral manner when aiming to enhance student motivation, well-being, and performance. Despite the neutral perceptions, there existed significant and positive relationships between the use of these AI tools and improved student outcomes. Emotional well-being and academic success were strongly interconnected, and both were significantly associated with psychological motivation. This suggested that while faculty might not have perceived AI tools as highly impactful, their use still contributed to positive educational and emotional outcomes for students. The study also concluded that demographic factors influenced emotional well-being and academic success, though psychological motivation appeared unaffected by such differences.

Recommendations

Based on the study's findings, it was recommended that higher education institutions provide faculty with additional training and support to effectively integrate AI-powered tools into their teaching practices. Institutions should promote awareness of how these technologies can contribute not only to academic performance but also to psychological and emotional development. Further, academic leaders were encouraged to ensure that AI implementation is inclusive and responsive to the diverse demographic profiles of students. Lastly, future research could involve student perspectives and a longitudinal approach to better understand the long-term impacts of AI on educational and emotional outcomes.

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