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Unveiling College Students' Perspectives on the Use of Artificial Intelligence: A Convergent Parallel Study

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ABSTRACT

This research looks at how Artificial Intelligence (AI) affects college students' educational experiences. The study uses both quantitative and qualitative methods to examine how AI impacts student workload, stress, and academic performance from the students' point of view. The quantitative results show that students generally accept and view AI integration positively, but they also worry about how quickly AI is developing and about ethical issues. Students prefer a balanced approach that combines AI with traditional teaching. The qualitative findings point out that AI can save time, but students are also concerned that it might limit creativity and critical thinking. Overall, the study offers a broad view of AI in education and stresses the need to use AI responsibly to get the most benefits while reducing potential problems.

Keywords: education, artificial intelligence integration, college students' perception

INTRODUCTION

AI is being used more and more in schools all over the world. This is great for colleges and universities, but it also brings up some big problems. A lot of schools now incorporate AI in their systems for managing learning, helping students, and testing. Stanford University, for instance, demonstrated innovative applications of AI, such as QuizBot, which significantly enhanced students' retention and recall of material compared to conventional study techniques (Myers, 2019; Ruan, 2019). These examples highlight how AI may make learning more personal and keep students motivated. However, despite these positive outcomes, there is growing concern about how students' reliance on AI could affect their independence, cognitive growth, and academic honesty. These are still not well-studied themes in international research.

People in the Philippines are both happy and worried about AI being employed in classrooms. A lot of teachers believe that AI is a helpful tool that can make schooling easier and help kids learn more. The 2023 case at the University of the Philippines Diliman, where students were investigated for utilizing AI to do their homework, indicates that there is still a lot of disagreement concerning academic honesty (Guiao, 2023). More and more students are using AI at schools near them, especially for writing assignments that demand them to think critically and analyze information. Students at a school in Davao de Oro declared in public that they use AI because it saves them time and gives them immediate access to information. These instances show that AI is becoming a part of how kids learn, but the academic literature in the Philippines still doesn't fully comprehend how this transformation will effect students' morals, cognitive skills, and the quality of their learning.

Even while more and more people are interested in AI in higher education, there are still big gaps in research, especially when it comes to what students really go through. There is already a lot of study on how AI may be utilized in schools or how it could speed up learning (Murphy, 2019; Chaudhry, 2022). These studies are helpful,

but they usually don't talk about concerns about data privacy, security, or the thought that AI can make people less creative and less able to think critically. Moreover, whereas frameworks like the Technology Acceptance Model (TAM) clarify the reasons for students' adoption of AI, and Cognitive Load Theory (CLT) assesses the effects of AI on cognitive effort, there is a lack of studies that combine both perspectives. As a result, there is a lack of awareness of how AI affects students' workload, stress levels, study habits, and overall academic performance. This gap highlights the imperative for research centered on students' lived experiences and educational realities.

This study is significant since it employs both quantitative and qualitative methodologies to provide a comprehensive and equitable representation of AI's role in higher education. The research employed a convergent parallel mixed-methods design to quantify trends and elucidate students' individual experiences. When you put TAM and CLT together, you get a full picture of how students utilize and accept AI tools, as well as how these tools impact the way they think and learn. This study can help schools write responsible AI rules, assist teachers build classrooms that are good for learning, and make sure that AI is utilized to help people progress instead of to cheat on tests. In the end, this study helps us learn more about how AI changes the way students learn today. It helps schools handle new ideas while still keeping genuine, important learning in mind.

Problem Statement

This study aimed to explore the perceptions, lived experiences, and insights of college students regarding the integration of Artificial Intelligence (AI) in education. Specifically, the study sought to address the following research questions:

1. What is the level of college students on Artificial Intelligence Integration in terms of:
   - The use of AI applications in education;
   - Compatibility of AI applications;
   - Willingness to use generative AI technologies; and
   - Knowledge of using AI technologies?
2. What is the level of college students experience on the use of AI?
   - Learning experiences;
   - Learning outcomes;
   - Student attitudes; and
   - Student perceptions?
3. Is there a significant relationship between artificial intelligence integration and lived experiences of college students on the use of AI?
4. What is the relevance of artificial intelligence integration to education?
5. How do students perceive the use of artificial intelligence in their learning experience?
6. What are the potential benefits and challenges faced by college students in the integration of AI in education?
7. To what extent does the quantitative data corroborate the qualitative data?

Hypothesis

H_{01}: There is no significant correlation between the level of artificial intelligence integration and quantitative measures of college students' experiences with AI.

H_{02}: There is no significant association between qualitative insights from in depth interviews on artificial intelligence integration and college student experiences with AI.

Literature Review

Artificial intelligence is becoming a large aspect of many fields of study and everyday technologies. AI recommends content on digital platforms depending on user behavior. This is what Facebook, Google, and YouTube do (Gupta, 2019). AI can also be used for purposes beyond work. For instance, it helps scientists study space by processing vast amounts of information and examining what is happening on other planets. It also assists with medical diagnosis by helping to identify abnormalities in the nervous system. There are several ways that AI is employed in higher education. Basic conversational interfaces can aid students with everyday questions, but they can only answer simple ones (Cheston & Shock, 2019). These tools perform better when combined with contextual interfaces, such as buttons, lists, or pictures, that help students quickly access the information they need and reduce the need for prolonged interactions with chatbots. More advanced AI systems utilize information on students' behavior, performance, and curriculum to provide them with specific "nudges" that prompt swift action, such as signing up for a class or scheduling an advising appointment (Cheston & Shock, 2019). These insights can also help the school plan, analyze programs, and make choices.

AI in Colleges and Universities

As technology continues to develop rapidly and the needs of the workforce evolve, businesses must adopt new tools. These include AI (Fulton, 2019), cloud technology, mobile devices, virtual reality, and multimedia technologies. AI's goal is to replicate certain aspects of human thought and decision-making processes, enabling it to assist with education (Murphy, 2019). This includes systems that are designed to act, think, and reason like people (Mueller, 2020). AI can enhance learning for everyone, but technology must be prepared for schools and applied in a way that makes sense (Schroeder, 2019).

How AI is Used in Teaching and Learning

Schools can better meet students' needs and improve their services by utilizing AI and data mining to identify patterns in student data. Educational Data Mining (EDM) is becoming integral to understanding the determinants of student academic performance (Chatterjee & Bhattacharya, 2020; Shahiri et al., 2019). Games and recommendation systems for learning make the experience more engaging and personalized for each individual (Yadav et al., 2019; Zirawaga et al., 2019). AI also identifies learning gaps, tracks students' progress, and provides them with relevant resources to support their learning. It also helps teachers organize and grade more easily (Khera, 2019; Schroeder, 2019). As large tech companies continue to invest heavily in AI-powered educational systems, new approaches to teaching and learning are emerging (Wiley, n.d.).

How well AI and people work together

You need to combine technology with what people already know to effectively utilize AI. AI cannot replace the relational aspects of teaching—such as trust, communication, emotional support, and adaptability—which have a profound influence on student success (Roorda et al., 2021). Research demonstrates that strong teacher-student relationships have a significant impact on learning outcomes, with considerable effect sizes (Hattie, 2021). AI can't understand feelings; therefore, teachers need to establish a balance between its benefits and being with people. It's also crucial to plan ahead when introducing AI literacy to the curriculum. To employ AI safely and successfully, students need to master specific things and skills. Identifying the most important abilities and designing courses that teach them (Mather & Yau, 2019) is one way to achieve this. Some of the technologies that can assist individuals learn languages and science are chatbots, simulations, and virtual experiments (Pardo-Ballester et al., 2020; Kim et al., 2019). This type of integration facilitates easier reading, writing, critical thinking, and problem-solving.

Generative AI that is ready to use

People have reacted to generative AI in diverse ways. Some individuals appreciate its potential, while others express concerns about its limitations and ethical implications (Lee, 2023; Chomsky et al., 2023). GenAI can produce text and other content that appears to have been written by humans (Dwivedi et al., 2023). This makes it useful for individualized learning, content creation, delivering feedback, and assisting with training (Cao et al., 2023; Haleem et al., 2022; Kasneci et al., 2023). Researchers emphasize the necessity for ethical frameworks, AI literacy, and an appropriate balance of human-AI responsibilities (Tlili et al., 2023; Bozkurt et al., 2023). GenAI brings both advantages and disadvantages: it can increase efficiency and accessibility, but may also introduce bias, propagate misinformation, raise privacy issues, and foster excessive reliance.

Thoughts and Understanding of AI

People's views on AI are shaped by cultural narratives that portray it as either too helpful or too harmful (Cave et al., 2018). AI has existed since the 1950s, but its adoption in schools has been slow due to past challenges, such as the AI Winter (McCarthy et al., 2022; Umbrello, 2021). People are particularly interested in AI tools like Grammarly, QuillBot, and Turnitin. Following the release of ChatGPT, interest in AI increased, and it quickly gained more than a million users (Hu, 2023). Teachers are now wondering how generative AI can transform college education (McMurtie, 2023). Some schools are exploring the use of AI, while others are limiting its use (Rosenblatt, 2023). To adopt responsibly, you need to know how people see things.

The good and bad things about AI in higher education

AI enhances learning by enabling students to generate new ideas, receive immediate feedback, and engage with the content on a deeper level (Atlas, 2023). In creative fields, tools like DALL-E improve design education (Dehouche, 2023). GenAI assists in synthesizing knowledge and composing research articles (Berg, 2023). Automated evaluation tools provide consistent scoring and reduce grading time (Landauer, 2003; Mizumoto & Eguchi, 2023). However, significant challenges remain. Students may use AI to complete assignments without gaining a true understanding (Kavale & Forness, 2019). Traditional exams might require revision to emphasize skills that AI cannot easily replicate, such as creativity, critical thinking, and real-world problem-solving (Kulkarni et al., 2019). AI-generated content can be biased, inaccurate, or harmful if the training data is flawed (Harper, 2023; Maerten & Soydan, 2023). Plagiarism detection algorithms often struggle to identify AI-generated work, complicating efforts to maintain academic integrity (Peres et al., 2023; Zhai, 2022). These challenges underscore the need for responsible and thoughtful integration of AI.

How College Students Use AI

AI can assist schools in keeping students and improving support services, which can help with low enrollment. Advisers can identify trends linked to the likelihood of students dropping out before they worsen by examining historical student data (McMurtrie, 2019; Kim, 2019). These findings help schools implement targeted interventions, particularly for first-generation and marginalized student populations.

Outcomes of Learning and Experiences Enhanced by AI

Changes in ICT have revolutionized how teachers educate, making learning more interactive and connected (Sinha & Bagarukayo, 2019; Tijani et al., 2020). These technologies help students learn both in and out of the classroom, preparing them for a rapidly changing work market (Pedro et al., 2019; United Nations, 2019). AI-assisted tutoring systems utilize cognitive science and machine learning to create personalized lessons tailored to each student's needs and predict their academic performance (Thai-Nghe et al., 2020). There is still considerable work to be done on fully adaptive AI systems, but they hold significant potential for classrooms in the future.

What Students Think and Feel

Bailey et al. (2021) and Sumakul et al. (2022) suggest that AI technologies are beneficial for learning a new language, generating innovative ideas, and engaging in conversations. Many individuals believe that AI will impact their future employment and that AI-related competencies should be incorporated into higher education (Bisdas et al., 2021; Lee et al., 2022). People remain concerned about losing their jobs, the inability to interact with others in person, privacy issues, emotional distance, and ethical risks (Jeffrey, 2020; Bisdas et al., 2021; Chen et al., 2023; Gillissen et al., 2022). How well students learn technology depends largely on how they perceive it. Positive experiences foster deep learning, whereas negative experiences may lead to surface learning strategies (Davis, 2019; Biggs, 2019, 2022). These impressions have a direct impact on how effectively schools utilize GenAI tools.

MATERIALS AND METHODS

Research Design

This study employed a Convergent Parallel Study research design, allowing for the simultaneous collection and analysis of quantitative and qualitative data. This Mixed-methods approach enabled a comprehensive exploration of college students' perspectives on the use of Artificial Intelligence (AI) in education. By integrating quantitative and qualitative data, this design ensured a robust and nuanced understanding of the research questions. This approach provided an opportunity to examine both the statistical trends and the rich contextual information obtained from participants. In the quantitative phase, the researcher used descriptive research to identify trends, associations, and correlations in relevant variables related to AI's impact on college students. Positivist and post-positivist philosophy helped form and test hypotheses, while meticulous statistical and mathematical analyses using survey instruments illuminated the quantitative aspects of the research, meeting objectivity, reliability, internal validity, and external validity criteria. The qualitative phase employed a phenomenological research design to complement the quantitative phase. This approach aimed to extract nuanced insights beyond numerical data, addressing 'how' and 'why' questions within a contextual framework. The qualitative findings were evaluated for confirmability, plausibility, and transferability to ensure robustness and credibility. This dual-phase methodology, integrating both quantitative and qualitative methods, provided a comprehensive exploration of AI's influence on the college student experience.

Research Locale

The research was conducted at a state college located in New Bataan, a landlocked municipality in Davao De Oro, Philippines. New Bataan spans 55,315 hectares and comprises 16 barangays. The college, situated specifically in Barangay Cabinuangan, enrolled a total of 1,035 students for the academic year 2023-2024, distributed across three departments: Bachelor of Elementary Education, Bachelor of Secondary Education, and Bachelor of Science and Entrepreneurship. The college boasts a diverse student population, encompassing various ethnicities, age groups, and gender distributions. Notably, the students exhibit a keen acceptance and utilization of a wide range of modern technologies, including artificial intelligence.

Sampling Procedures

The population under investigation for this study encompassed students enrolled in the Bachelor of Elementary Education program at a state college in Davao De Oro during the academic year 2023-2024. All students within this program, regardless of gender, race, age, or marital status, were considered eligible for participation. Excluded from this study were students pursuing majors in Math, English, and Social Studies under the Bachelor of Secondary Education program, as well as students enrolled in the Bachelor of Science in Entrepreneurship program and those not currently enrolled in the college. To ensure a representative sample, proportionate stratified random sampling was employed, utilizing proportional probability size (PPS). The initial sample size was set at 96 respondents but was subsequently increased to 100 students in the Bachelor of Elementary Education program at the state college in Davao De Oro. This adjustment was based on calculations using the

Raosoft sample size calculator (Raosoft, 2004), with a 99% confidence interval and a margin of error of +/- 5%. The selection process involved categorizing the population into strata based on relevant characteristics, with sample size allocations made proportionally to each stratum.

Research Participants

Data gathering was done in two phases. The initial phase included the collection of quantitative data using a standardized questionnaire. During the qualitative phase, interviews and focus groups were used to investigate the integration of artificial intelligence and the college student experience in greater depth. Ethical considerations were taken into account, and participants were given written consent forms that provided them with extensive information about the study as well as the ability to choose whether or not to participate. Furthermore, approval was requested from the State Colleges' Research Ethics Committee before the start of the project.

Research Instruments

This study used two existing questionnaires to examine the extent of Artificial Intelligence (AI) integration and college student experiences among BEED students at Davao de Oro State College in New Bataan. The first questionnaire was adopted and modified from Nilsone's (2023) study on the impact of AI on higher education students. The Questionnaire of Artificial Intelligence Integration has four sub-dimensions: the use of AI applications in education (8 items), the compatibility of AI applications (8 items), the readiness to use generative AI technologies (8 things), and the understanding of generative AI technologies. Several adjustments were made to the phrasing of individual items to better match the characteristics of the intended audience and the local environment (Nilsone, 2023; Doronila & Cariaga, 2025).)

Data Gathering Procedures

The data collection process adopted a convergent parallel design involving both qualitative and quantitative strands simultaneously (Creswell & Creswell, 2017). The researcher commenced by obtaining the necessary REC approval and adhering to ethical standards (Graue, 2010). This approval underscored the study's commitment to ethical practices and bolstered participant recruitment.

Data Analysis

The research employed a mixed-methods design, initiating with comprehensive interviews to investigate students' experiences with AI in educational contexts. Creswell's thematic analysis was used to look at these qualitative data and find important patterns and insights. These were then used to make the quantitative questionnaire. We used Microsoft Excel to compile the survey data and then used weighted mean and Pearson's r to figure out how much AI was used and how AI applications, compatibility, desire to employ generative AI, and knowledge of AI were related. Finally, the qualitative and quantitative findings were combined using Creswell and Clark's integration methods. This helped the researcher get a better and more complete picture of how college students see and use AI in their learning.

Ethical Consideration

This study adhered to all ethical guidelines to ensure participant safety. Written informed permission was obtained, ensuring that all participants understood the study's aims, methods, and their right to withdraw at any time. The Data Privacy Act of 2012 (RA 10173) guaranteed privacy and secrecy, and no one could see the answers. The State College Research Ethics Committee gave the experiment the go-ahead before any data was collected. There was no pressure for anyone to take part, and they might opt not to. The interviews were done in a professional fashion, without using words that could be misleading or unfair. No participants were part of vulnerable groups. During the global health crisis, online networks helped keep people safe and healthy. People were honest, transparent, and respected each other's right to be free. There was no cheating, lying, making things up, or having a conflict of interest; all sources were given credit. The data was transcribed and reported correctly. Advisers and committees looked over the work to make sure it followed the guidelines for authorship. We thought about what the community needed and how institutions, schools, and research could benefit from it.

RESULTS AND DISCUSSION

This study utilized a mixed-method approach, incorporating qualitative data from in-depth participant interviews and quantitative data from surveys. This section provides a detailed examination of both qualitative and quantitative findings, highlighting key themes and insights derived from the data. Quantitative data results are presented with weighted measures assessing the amount of AI integration in education among college students and their perceived consequences. The questionnaire's validity was determined by adapting and modifying it from studies such as Chan and Hu's (2023) "Students' Voices on Generative AI: Perceptions, Benefits, and Challenges in Education" and Mustafa's (2021) "Activating the Use of Artificial Intelligence Techniques in Higher Education." The interpretation of the gathered data is methodically presented in both tabular and textual formats, incorporating mean scores, descriptive interpretations, and their implications.

The level of Artificial Intelligence (AI) usage in education reflects changing perceptions and utilization patterns among students. This evaluation involves understanding generative AI technologies, assessing AI application compatibility, and examining student willingness to adopt generative AI technologies in education. Depicted in Table 1 is the Level of How AI is used in Education based on college students' perceptions. The data reveals the mean scores for different statements related to AI integration and its perceived effects.

Table 1: Level of Artificial Intelligence integration in the use of AI Applications in Education

Statement	Mean	Descriptive Level
AI works well in addressing most educational problems.	4.10	High
AI is encouraged to apply each new educational technology	3.84	High
AI can interpret educational problems and develop appropriate technical solutions.	4.00	High
AI can work cooperatively in a flexible educational environment.	4.11	High
Multiple AI technologies and tools can be applied to my studies.	4.12	High
AI systems aim to enhance learning and teaching.	3.98	High
Overall Mean	4.03	High

According to the study of mean scores, there was a significant degree of agreement among students, as evidenced by the statement "Multiple AI technologies and tools can be applied in my studies," receiving the highest mean score of 4.12. This indicates a firm belief in AI's potential for diverse educational enhancements. On the other hand, the statement "AI is encouraged to apply each new educational technology" received a slightly lower mean score of 3.84, suggesting some reservations about integrating AI into every new technology in education. Overall, the data reveals a prevalent positive perception among college students concerning the role of AI in education, as highlighted by Idroes (2023) and Jeffrey (2020) in their studies, which collectively emphasize the strong belief among students in AI's efficacy in addressing educational challenges, underscores AI's potential benefits across teaching, learning, and academic management domains. However, it's crucial to acknowledge the concerns regarding AI's drawbacks, particularly its rapid evolution and potential adverse societal effects (Mbiazi, 2023). The aggregate mean score of 4.025, which is described as "High" despite these concerns, shows students' strong belief in AI's ability to improve education and get over major obstacles.

Table 2: Level of AI integration in the compatibility of AI Applications

Statement	Mean	Descriptive Level
I can use AI applications properly in learning.	4.07	High
AI applications enhance my understanding of educational concepts effectively.	4.09	High
AI applications complement traditional teaching methods in my learning process.	3.95	High
AI applications make it easier for me to access educational resources and materials.	4.07	High
AI applications provide personalized learning experiences that cater to my individual needs.	3.92	High
AI applications help me to stay motivated and engaged in my studies.	3.72	High
Overall Mean	3.98	High

The mean score analysis reveals that the proper use of AI received the highest mean score of 4.7, indicating strong student agreement on AI applications' compatibility and effectiveness in learning. These statements highlight AI's perceived ability to enhance understanding, facilitate access to resources, and be used effectively. Statement 12 garnered a slightly lower mean score of 3.72, demonstrating a favorable but somewhat low opinion of AI's contribution to student engagement and motivation. The data shows that college students generally have a positive opinion of AI's suitability for use in the classroom. The overall mean score of 3.98 indicates that students strongly believe that AI is effective in a variety of teaching and learning contexts. The usefulness of AI in education is typically seen favorably by educators and students, with teachers noting the technology's ability to lighten workloads and enhance information literacy (Xue, 2022). More research is nevertheless required to determine how successful AI-driven technologies are, especially with regard to learning outcomes and the function of teachers (Chichekian, 2022).

Table 3. Level of AI integration in terms of student's willingness to use generative AI Technologies

Statement	Mean	Descriptive Level
Have limitations in their ability to handle complex tasks	4.24	Very High
Can generate output that is factually inaccurate.	4.03	High
Can generate output that is out of context or inappropriate	3.78	High
Can exhibit biases and unfairness in their output.	3.73	High
Too heavily on statistics, which can limit their usefulness in certain contexts	4.03	High
Limited emotional intelligence and empathy, which can lead to output that is insensitive or inappropriate	4.13	High
Limit my opportunities to interact with others and socialize while completing coursework	3.72	High
Hinder my development of generic or transferable skills such as teamwork, problem-solving, and leadership skills	3.85	High
Overall Mean	3.94	High

The analysis of willingness to use Generative AI technologies showed that students having limitations in their ability to handle complex tasks received a mean score of 4.24, signifying very high agreement among students understanding AI limitations in handling complex tasks, students also expressed significant concerns about factual accuracy, statistical reliance, and emotional intelligence limitations in Generative AI technologies. In contrast, Statements regarding the negative effect of AI, with mean scores of 3.72 and 3.85, respectively, although they received lower mean scores, still fall within the "High Level" range in descriptive, indicating a high level of concern about limitations in social interaction opportunities and skill development. The overall mean score of 3.94 reflects a strong willingness to use AI despite understanding its limitations. These findings reflect the

research by Chan (2023) and Faruk (2023), highlighting that while there is a recognition of limitations in handling complex tasks and concerns about accuracy, fairness, and emotional intelligence, there is also an acknowledgment of potential benefits such as efficiency and productivity. Additionally, Seo (2021) notes concerns raised by students and instructors in AI that affect social interaction and the development of transferable generic skills. These results highlight the need for more investigation and the creation of policies to mitigate the concerns and guarantee the ethical and efficient application of generative AI technologies in higher education.

Table 4. Level of AI integration in terms of student's knowledge of generative AI Technologies

Statement	Mean	Descriptive Level
Integrating generative AI technologies like ChatGPT into my teaching and learning practices in the future.	4.06	High
Students must learn how to use generative AI technologies well for their careers	3.92	High
Generative AI technologies such as ChatGPT can improve my digital competence	3.89	High
AI technologies such as ChatGPT can help me save time	4.12	High
AI technologies such as ChatGPT can provide me with unique insights and perspectives that I may not have thought of myself	4.09	High
AI technologies such as ChatGPT can provide me with personalized and immediate feedback and suggestions for my assignments	3.98	High
AI technologies such as ChatGPT is a great tool as it is available 24/7	4.19	High
AI technologies are great tools for student support services due to anonymity.	3.83	High
Overall Mean	3.89	High

The data analysis in Table 5 indicates that college students show a slightly lower level of confidence (mean score of 3.47) in using AI tools for academic tasks compared to their overall positive views and trust in AI information. Conversely, they exhibit a very high level of agreement (mean score of 4.21) in their ability to study effectively without AI tools, highlighting their self-reliance and adaptability in traditional study approaches. The Overall data suggests a high level of agreement (mean score of 4.00) across various aspects of AI integration in learning, indicating that students trust AI's information, recognize its benefits, and generally have a positive view of AI. However, they also show a preference for traditional study approaches in certain academic contexts, as evidenced by their higher confidence in studying without AI tools. College students generally have a positive perception of AI but are concerned about its rapid development and potential drawbacks (Jeffrey, 2023). These results are consistent with previous studies. It was found that college students have a generally good opinion of AI, but they also voice concerns about its possible downsides and rapid development. Idroes (2023) observed in a similar manner that although students recognize the advantages of AI, they are cautious when using it in academic assignments. This prudence could be explained by ignorance of AI and its possible effects. Students do, however, also show a significant degree of flexibility and independence when using traditional study techniques, suggesting a preference for these tactics in particular academic settings.

Table 5. Level of College Students' Learning Experience with AI Integration

Statement	Mean	Descriptive Level
I have a positive view of using AI in my studies	3.85	High
I trust that the information provided by AI is correct	3.62	High
I know what AI tools can benefit from the most in my studies	3.83	High
I feel confident about using AI tools in my assignments, essays, etc.	3.47	High
I am also able to study without using AI tools for assignments, essays, etc.	4.21	Very High
Overall Mean	4.00	High

This analysis reveals that statement 24 stands out with the highest mean score of 4.12, reflecting a strong agreement among respondents regarding the time-saving potential of AI technologies like ChatGPT. On the other hand, because of worries about anonymity, Statement 28 had a slightly lower mean score of 3.83, suggesting a strong but relatively lower degree of agreement with the applicability of AI technologies for student support services. This data confirms that AI technologies are seen favorably in education, especially when it comes to the time savings and novel insights they provide. It has been discovered that these technologies, like ChatGPT, provide research and analytical capabilities, writing and brainstorming support, and tailored learning support (Chan, 2023). These results also corroborate Chu's (2023) earlier research, which showed how AI can improve learning outcomes and expedite procedures.The level at which college students experience AI integration in education is evaluated through their learning engagement, academic outcomes, attitudes toward AI, and perceptions of its role in education. These insights provide a thorough understanding of their relationships and viewpoints, emphasizing the influence of AI on their educational path.

Table 6. Level of College Student Learning Outcomes in AI Integration

Statement	Mean	Descriptive Level
Artificial intelligence helps me learn and study things more effectively	3.97	High
The results from learning with the help of AI are of the same or higher quality than without AI.	3.69	High
I am equally motivated to educate myself both with and without the use of AI.	4.14	High
I am not worried about AI affecting my learning outcomes.	3.81	High
AI does not affect my analytical, problem-solving, or research skills.	3.73	High
Overall Mean	3.87	High

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without AI tools, highlighting their self-reliance and adaptability in traditional study approaches. The Overall data suggests a high level of agreement (mean score of 4.00) across various aspects of AI integration in learning, indicating that students trust AI's information, recognize its benefits, and generally have a positive view of AI. However, they also show a preference for traditional study approaches in certain academic contexts, as evidenced by their higher confidence in studying without AI tools. College students generally have a positive perception of AI but are concerned about its rapid development and potential drawbacks (Jeffrey, 2023). These results are consistent with previous studies. It was found that college students have a generally good opinion of AI, but they also voice concerns about its possible downsides and rapid development. Idroes (2023) observed in a similar manner that although students recognize the advantages of AI, they are cautious when using it in academic assignments. This prudence could be explained by ignorance of AI and its possible effects. Students do, however, also show a significant degree of flexibility and independence when using traditional study techniques, suggesting a preference for these tactics in particular academic settings. With a mean score of 4.14, indicating a high degree of agreement, the learning outcomes data reveal that college students are very driven to educate themselves, whether with or without AI tools. Their opinions of the quality of learning results when utilizing AI, however, differ noticeably; the lowest mean score of 3.69, which is still in the "High" descriptive category, indicates a lesser confidence level. This discrepancy shows that although students are eager to include AI in their education, there is still some reluctance or doubt regarding AI's ability to consistently produce learning outcomes that are on par with or better than existing ones. With a mean score of 3.87, the perception of learning outcomes with AI overall shows a generally favorable perspective but also points to an area where additional assurance and refinement are required to resolve concerns and increase confidence in the usefulness of AI. The growing trend of incorporating AI tools in educational settings emphasizes students' positive attitudes toward AI's potential to enhance learning experiences (Wang, 2023). This aligns with the findings indicating high motivation among students to educate themselves with AI tools. The observed discrepancy in confidence levels regarding AI's ability to deliver equal or superior learning results, however, suggests that while students acknowledge the benefits of AI, they have concerns about its reliability and impact on learning effectiveness (Jeffrey, 2020). These concerns are supported by the need for caution and additional research regarding the consistency of AI in delivering quality learning outcomes. Furthermore, elements impact how students view the incorporation of AI in the classroom, emphasizing the significance of resolving these worries through improved AI capabilities and transparent explanations of its advantages to foster student confidence and trust (Lampou, 2023). Integrating these insights from the literature strengthens the discussion by providing a broader context and supporting evidence for understanding students' perceptions and the need for further enhancement in AI integration for effective learning outcomes.

Table 7. Level of College Students' Attitudes towards AI

Statement	Mean	Descriptive Level
It is important to learn AI in school	3.68	High
Lessons about AI should be taught in school.	3.79	High
Every student should learn about AI in school.	3.73	High
AI is worth studying	3.88	High
I want to continue learning about AI.	3.86	High
Overall Mean	3.99	High

The data collected regarding students' attitudes towards AI depicts High perceptions of AI in education. Among the listed statements, "AI is worth studying" received the highest mean score (3.88) and is classified as "High" in descriptive terms. This finding suggests a strong consensus among students regarding the value and importance of studying AI. It indicates that students recognize AI education's significance in their academic and professional development, acknowledging AI's role in shaping future technologies and careers. Conversely, the statement "It is important to learn AI in school" received the lowest mean score among those listed in Table 7, with a mean score of 3.68, still categorized as "High" but slightly lower. Students' differing opinions about the need for formal AI education in the classroom could be attributed to many factors, such as the relative importance of learning AI vs other courses or abilities. The 3.99 overall mean score, which is categorized as "High" in descriptive terms, reflects a strong positive attitude among college students toward AI education. This high mean score indicates a general consensus and acceptance among students regarding the significance of incorporating AI into their learning experiences. These findings imply a positive attitude towards AI education, indicating a readiness among students to engage with and learn about AI. This is consistent with the understanding of AI's disruptive potential and the growing significance of AI capabilities across businesses (Biggs, 2022). Wang's research from 2023 also lends credence to the idea that students are motivated to use AI technologies for self-education. In conclusion, these findings point to a favorable disposition towards AI education among college students, with opportunities to further emphasize the value of AI learning and explore ways to enhance its integration into educational settings.

Table 8. Level of College Students' Perception Towards AI Integration.

Statement	Mean	Descriptive Level
I am familiar with the concept of artificial intelligence	4.16	High

Students who use AI for their studies are innovative.	3.76	High
My instructors have addressed the use of AI (especially ChatGPT and other text and image generation tools) in my courses.	3.77	High
I plan to use ChatGPT or similar tools for my course pack in the future.	3.62	High
I would be open to receiving instructions about how to use Chat GPT or similar tools.	3.96	High
Overall Mean	3.85	High

The data in this table shows a noteworthy trend: students are clearly familiar with the concept of artificial intelligence, as demonstrated by the high mean score of 4.16 for the statement "I am familiar with it." In contrast, the statement "I plan to use ChatGPT or similar tools for my course pack in the future" received the lowest mean score of 3.62. While the score is still rated as "High," it suggests that students are less likely to place a higher priority on incorporating particular AI tools into their academic work. The overall mean score of 3.85, also categorized as "High," reflects an overall positive perception of AI among college students. This indicates a recognition of AI's value and potential in education, despite some reservations about adopting specific AI tools. Overall, while students may be less inclined to utilize certain AI tools presently, they remain open to exploring and embracing AI's applications further in their educational journeys. This research suggests that college students have a generally favorable opinion of artificial intelligence (AI) and its uses. Even so, as Cheston and Shock (2019) noted in their study on obstacles like the technical expertise required and limited resources that schools might face when integrating AI, there is a lower tendency towards actively planning for the use of ChatGPT or similar tools in coursework. Possible reasons for this discrepancy could include limited awareness of these tools' capabilities, uncertainty about their effective integration into academic work, or a preference for traditional learning methods and content creation (Wang, 2023).

Correlation between Measures

Presented in the following table is the significance of the relationship between two variables; Artificial Intelligence Integration and Live Experience on the Use of AI.

Table 9. Significant relationship between artificial intelligence integration and college students' lived experience on the use of AI.

Variable	Mean	(r) value	(p) value	Decision	Interpretation
Artificial Intelligence Integration	4.00	0.787**	0.000	Rejected	Significant
Lived Experience on the Use of AI	3.76				

Correlation is significant at the 0.01 level (2-tailed).

This study found a strong positive relationship ($r = 0.787$) between Artificial Intelligence (AI) in Education and College Students' Experience with AI. The high Pearson correlation coefficient shows that students' involvement and familiarity with AI technology grow significantly with the usage of AI in education. The statistical significance ($p < 0.000$) reinforces the reliability of this relationship, indicating that it is unlikely to be due to chance. These results have crucial implications for educational institutions, highlighting the potential advantages of integrating AI technologies into educational practices to improve student learning experiences and promote greater engagement with emerging technologies. The findings of this study, when paired with the results, offer strong evidence in favor of the hypothesis that higher levels of AI use in educational settings are associated with higher levels of student engagement and familiarity with AI tools, which can enhance the teaching and learning experience, personalize student learning, and improve learning outcomes (Lampou, 2023). This strategy should be used carefully, though, with an emphasis on awareness and appropriate training to guarantee responsible and successful outcomes. Despite the challenges, artificial intelligence (AI) integration into the classroom is seen as an inevitable trend that can support students' development of creativity (Qian, 2020).

Table 10. Joint Display of Quantitative and Qualitative Results

Focal Point	Quantitative Results	Qualitative Results	Nature of Integration
Artificial intelligence integration	The overall mean scores across the four indicators (Use of AI Applications: 4.025, Compatibility: 3.98, Willingness: 3.94, Knowledge: 3.975) illustrate a high level of acceptance and positive perception towards AI integration in education among students. While students recognize the significant benefits of AI applications, they are also aware of their limitations and potential drawbacks. Despite these concerns, there is a strong willingness to use AI technologies, indicating a balanced and pragmatic approach to AI integration in education.	AI Platforms and Models: Popular AI platforms like ChatGPT, CiCi, and BARD are widely used in education. Time-Saving Benefits: AI tools help save time by handling repetitive tasks, allowing students to finish academic work quickly and have more free time. Ease of Use: These AI applications make tasks easier and more efficient. Creativity and Critical Thinking Concerns: Overreliance on AI can hinder creativity and critical thinking, reducing originality and critical engagement. Excessive Dependence: Heavy dependence on AI can lead to laziness, as students might rely too much on AI for academic tasks instead of putting in effort.	Convergence
Live experience on the use of artificial intelligence	College students generally view Artificial Intelligence (AI) positively in education, showing high trust in its information and recognizing its benefits, although they are slightly less confident in using AI tools for academic tasks. Students are motivated to educate themselves with or without AI tools but express reservations about AI's consistency in delivering superior learning outcomes. While they value AI's importance in education,	AI provides instant access to information, making it a valuable tool for quickly obtaining necessary details. It also enhances self-paced learning by offering personalized recommendations and immediate feedback, thereby supporting individual learning experiences. However, engagement with AI has a dual nature, as users often experience both satisfaction and dissatisfaction depending on how the AI is utilized.	Convergence

	their priorities regarding formal AI education in schools vary. Despite being familiar with AI concepts, their inclination to use specific AI tools in academic tasks is somewhat lower, suggesting a need for further assurance of AI's effectiveness.		
Relationship between artificial intelligence integration and college student experience	The study shows a clear link between using AI in education and students' engagement with AI technologies. As AI usage increases, so does students' familiarity and interaction with these technologies. The statistical significance of this relationship reinforces its reliability, highlighting the benefits of integrating AI in education for enhancing learning experiences and promoting greater engagement with emerging technologies.	The data indicates increasing adoption of AI platforms like in education, driven by their efficacy and user preference, with research supporting benefits like improved performance and engagement. Students value AI for its time-saving capabilities, aiding in task completion, time management, and meeting deadlines, supported by research from Abbas (2023) and Negoiţă (2023). AI integration requires addressing ethical concerns, teacher training, and potential drawbacks like hindering creativity and fostering dependency among students. Educators play a vital role in balancing AI's benefits with fostering critical thinking, creativity, and self-reliance among students to avoid overdependence on AI.	Convergence

The outcomes of this study together elucidate the manner in which college students are navigating the increasing integration of artificial intelligence in their education. When we compared the quantitative results to what the students said, the two sets of data strongly supported each other. This showed that triangulation can help people understand better, as Creswell (2019) and Noble and Heale (2019) said. Students exhibited a significant degree of acceptance and regard for AI technology, perceiving them as beneficial collaborators in their academic endeavors. This openness parallels broader developments identified in recent literature, such as Doronila and Cariaga's (2025) re-evaluation of assessment instruments and educational interpretations, as well as Cariaga and colleagues' (2025) emphasis on more culturally sensitive and inclusive educational practices. Students frequently utilized platforms like ChatGPT, CiCi, and Bard to conserve time, elucidate challenging subjects, or manage substantial academic demands, reflecting the time-saving advantages and productivity enhancements evidenced in both domestic and global studies (Abbas, 2023; Negoiţă, 2023). Their experiences align with findings from research on AI integration challenges in K-12 schools (Cariaga et al., 2025) and broader assessments of human-AI collaboration in decision-making and creativity (Cariaga, 2025). Even with these benefits, students were worried that the more they used AI, the less creative and critical thinking they would be. This problem mirrors warnings articulated in previous studies, notably those by Jeffrey (2023) and Wang (2023), which demonstrate that excessive dependence on AI can progressively undermine essential cognitive abilities. It's interesting that the students' reflections are in line with themes that have been found in other areas of educational research. For instance, projects that encourage numeracy and remedial learning in rural areas (Cariaga, Pospos, & Dagunan, 2024) stress how important it is to balance digital tools with real-life interactions. Likewise, efforts to enhance 21st-century skills such as communication, collaboration, and creativity illustrate that technology can assist learners but cannot supplant the guidance and rapport that educators offer (Cariaga, 2024). Parents' views on their children's academic and social-emotional growth are also the same: technology is useful, but students do best when it is used in a learning setting that is helpful and focused on people (Cariaga et al., 2024). When used intelligently and responsibly, AI is most powerful, as shown by the growing discussions regarding AI in healthcare and decision-making (Cariaga, 2025). Students know that AI can make learning easier, faster, and more accessible, but it can't take the place of human judgment, empathy, or creativity. This means that teachers need to construct learning spaces where AI helps students make their own decisions instead of taking over. For schools, this means spending money on professional development, making standards about ethics, and making sure that both kids and instructors feel comfortable with the tools they use instead of overwhelmed. Finally, all of the research mentioned here come to the same conclusion: AI has a lot of potential in education, but it will only work if human insight, cultural understanding, and meaningful learning are at the center of every digital innovation.

Conclusion and Recommendations

With both quantitative and qualitative data analysis, this study offers a thorough investigation of college students' viewpoints on integrating AI in the classroom. The quantitative data reveal a high degree of acceptance and a favorable impression of AI, confirming students' readiness to use AI technologies and realize their potential advantages. However, concerns about the rapid development of AI, potential drawbacks, and the necessity for careful ethical considerations also emerged, highlighting the complexity of integrating AI in educational settings. Qualitative insights delve deeper into students' real-life experiences with AI, revealing themes such as using AI platforms, time-saving advantages, and potential hindrances to creativity and critical thinking skills. Additionally, a cautionary note on excessive dependence on AI could lead to potential drawbacks. These results highlight how

crucial it is to implement an balanced AI integration strategy that encourages skill development, ethical application of AI, and active involvement.

In summation, the integration of the Technology Acceptance Model (TAM) and Cognitive Load Theory (CLT) establishes a refined and systematic framework for this inquiry. TAM addresses the adoption and acceptance of AI tools, evaluating how seamlessly these tools integrate into students' learning habits and the factors influencing their readiness to incorporate AI into their academic lives. CLT provides essential insights into the cognitive effort required for processing information with AI tools, examining whether AI reduces cognitive strain through rapid information processing or causes cognitive overload due to over-reliance on AI. An intricate and thorough grasp of the complex environment around the influence of AI on the college student experience is produced by this interdisciplinary approach. All things considered, this study adds insightful new information to the expanding corpus of research on the application of AI in education. It highlights the necessity of continual study and development to solve problems, optimize the benefits of AI, and reduce any possible hazards. To successfully navigate these issues and create a learning environment that effectively uses AI to improve student learning experiences and outcomes, educators and institutions play a critical role.

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