



## **Benefits, Challenges and Ethical Implications of Using Artificial Intelligence in Learning Psychological Concepts and Practices**

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### **Abstract**

*In Ghana, artificial intelligence (AI) is an emerging technology for students. This study explored the benefits, challenges and ethical implications of using of AI among undergraduate psychology students in the University of Cape Coast, Ghana. The study involved a descriptive survey of 148 participants. The study employed a structured questionnaire in 3 dimensions: benefits, challenges and ethical implications in using AI in learning psychological concepts and practices. The results revealed that students perceive AI as beneficial to their learning and use of psychological concepts. Also, the study revealed that students perceived some challenges with the use of AI in learning psychology and psychological concepts. Finally, the study showed that students perceive there exists some ethical implications in using AI in learning and psychological concepts. The study recommends that educational institutions should work towards improving access to AI tools for psychology students by integrating them into learning management systems, providing institutional licenses, or offering training on free or open-source alternatives. Furthermore, the study recommends AI developers should establish clear policies and guidelines regarding data privacy and security. Strict regulations should be implemented to protect user information, and students should be educated on ethical AI usage to minimize risks associated with bias and confidentiality breaches.*

**Keywords:** *Artificial Intelligence, Psychological Concept, Ethical Implications*

### **Introduction**

Psychology is the scientific study of human thoughts, emotions, and behaviour. It seeks to understand how individuals think, feel, and act in various situations, drawing on both theoretical perspectives and empirical research (Bundy, 2019). Bundy further asserts that the field is broad, covering areas such as cognitive psychology, which examines mental processes like memory and problem-solving, as well as clinical psychology, which focuses on diagnosing and treating mental health disorders. Other branches, including developmental and social psychology, explore how people change over time and how they interact within groups. Psychological concepts involve applying psychological knowledge in professional settings to support mental well-being and improve quality of life. Therapists, counsellors, and clinical psychologists use evidence-based methods to assess, diagnose, and treat individuals experiencing emotional or behavioural difficulties. Techniques such as cognitive-behavioural therapy (CBT), psychoanalysis, and humanistic approaches help address a wide range of psychological concerns. Beyond therapy, psychological principles are also applied in education, business, and healthcare to enhance learning, workplace productivity, and patient care (Woolf, 2020).

The broad domain of computer science known as Artificial Intelligence (AI) focuses on building machines that can perform tasks requiring human intelligence (Zawacki-Richter et al., 2019). AI technology is applied in devices such as Siri and Alexa, email spam filtering systems, self-driving cars, Robo-advisors, and talking bots. Xu and Ouyang (2022) further assert that as the newest development across the globe, AI has proved highly impactful in various fields, especially in mathematics and sciences. The incorporation of Artificial Intelligence (AI) technology into education changes everything in the fast-paced advancing world of education. In regard with its capability of analysing bulk data to look for patterns, make predictions, and identify trends, AI has emerged as a fundamental change maker in multiple disciplines including psychology. Despite all the benefits, AI development still comes with clear challenges such as ethical issues, privacy, and the need for human intervention to minimize harm while still optimizing its benefits.

With rapid advancements in technology, psychology is evolving to incorporate new tools and approaches. AI is increasingly being used in education and psychological practice, raising important discussions about its advantages, potential drawbacks, and ethical implications. Our understanding of how AI influences psychology and mental health care is essential for ensuring its responsible and effective integration into the field.



The new global order has faced numerous problems in the twenty-first century. Among many other important topics, one that is worth researching is the benefit of AI to students (specifically psychology students) and the implications thereof (Aslan et al., 2019). The University of Cape Coast (UCC) is a leading public university in Ghana, known for its excellence in various academic disciplines, including psychology. As a university committed to producing well-rounded graduates, UCC recognizes the importance of nurturing student who can use AI to their advantage while considering likely implications.

There has not been extensive research done in Ghana on AI and student's learning. The scant literature on the subject of AI and education has not addressed perceived benefits, challenges and ethical considerations in learning and usage among psychology students. Based on the aforementioned, this research study attempted to close this gap by investigating the benefits of AI to students. The study also seeks to investigate the potential challenges and ethical implications in using Artificial Intelligence in psychology. The following questions were used as a guide to the paper.

- i. What are the benefits associated with using AI in the learning of psychology?
- ii. What are the challenges associated with using AI in the learning of psychology?
- iii. What are the ethical implications of using Artificial Intelligence in psychological concepts?

Understanding these questions can help the university, educators and policymakers to create more successful plans for encouraging students to use AI and offer caution and preventive measures as far as its challenges and ethical implications are concerned.

### Review of Literature

Artificial intelligence (AI) has brought new tools, technologies, and teaching and learning methods that have drastically changed the landscape of tertiary education (Cruz-Benito et al., 2019). There is no widely accepted definition of AI, so for the purposes of this study, we adapted Schank's (1987) definition. In this study, AI is defined as computers that perform tasks that are typically associated with human minds, particularly learning and problem-solving. A broad definition of AI allows us to encompass multiple functions. Chen et al. (2020) provided sourced descriptions of some of the important functions of AI, which at least provide a framework for the ways in which AI could be used. Learning analytics platforms that monitor student progress and pinpoint areas in need of intervention, as well as intelligent tutoring systems that offer tailored feedback and adaptable content, are just a few of the features that AI-powered educational apps have to offer. AI integration in education has the ability to improve learning results, increase student engagement, and create more individualised and flexible learning environments.

### Evolution of Artificial Intelligence

Artificial intelligence is not exactly a brand-new concept. Back in 1956, John McCarthy coined the term as a follow-up to Alan Turing's earlier work from the 1930s and 50s. Turing was the one who sparked the idea that computers could actually think and reason. Since those early days, AI has come a long way, evolving significantly in both capability and definition. Nowadays, when we talk about AI, we're referring to computing systems that can perform tasks similar to humans, such as learning, adapting, synthesizing information, correcting mistakes, and handling complex processing tasks (Baker, 2016). Bai et al. (2021) describe AI as machines that can mimic human reasoning.

However, pinning down exactly what artificial intelligence is can be tricky. This complexity arises because researchers from various fields; like linguistics, psychology, education, and neuroscience, approach AI through the lens of their own disciplines. As a result, it became necessary to classify AI according to different areas of study. The definitions highlight that AI is the product of decades of research and development. It has involved a diverse group of professionals, including linguists, cognitive scientists, statisticians, system and data designers, psychologists, education specialists, and others, all working together to create systems capable of some level of intelligence. These systems can assist both teachers and students in enhancing their knowledge and skills in a world that's always changing.

The development of AI has been a journey filled with innovation and breakthroughs. Over the years, researchers and scientists have made significant strides in advancing AI technologies. From the early days of Alan Turing's work on machine intelligence to the present, AI has evolved in various domains. Initially, AI focused on rule-based systems and symbolic reasoning. But with the advent of machine learning and neural networks, AI became more data-driven and capable of learning from vast amounts of information. This led to advancements in areas such as computer vision, natural language processing, and speech recognition. In recent years, deep learning, a

subset of machine learning, has revolutionized AI by enabling the training of complex models with multiple layers. This has led to breakthroughs in areas like image recognition, autonomous vehicles, and even playing strategic games. Additionally, AI has benefited from the availability of big data, increased computing power, and advancements in algorithms. These factors have allowed AI systems to become more sophisticated and capable of handling complex tasks. As AI continues to evolve, researchers are exploring new frontiers such as explainable AI, ethical considerations, and the integration of AI with other emerging technologies like robotics and the Internet of Things (IoT). The development of AI is an ongoing process, and it holds immense potential for transforming various industries and aspects of our daily lives.

### **Benefits of AI in Education**

#### **Intelligent tutoring systems**

With the help of AI, tutors are able to offer students unique feedback based on their individual learning needs in real time. While the student interacts with the learning materials, the AI analyzes the student's answers, looks for response patterns, and provides specific explanations to assist in better understanding (Graesser et al., 2018). This tailored approach works to overcome gaps in understanding, adjusting pacing as needed. Luckin et al. (2016) stated that by providing help in real time and adjusting to different learner's preferences, these students are able to grasp difficult concepts more easily. With such ready access to real-time support, learners will likely understand and gain confidence regarding their performance enabling them to in turn improve their academic qualifications.

#### ***Automated grading and assessment***

AI simplifies administering grades by looking at the student's work and providing an unbiased, quick evaluation (Shute & Ventura, 2013). Through AI, teachers' workload is highly reduced, enabling them to spend more time on providing assistance to learners. Student performance indicators provide more focus on assists to those who require more help (Heffernan & Heffernan, 2014). Also, with such advanced technology, feedback is attained with the use of AI which brings the speed efficiency improves the learning cycle. AI enables the automated grading and assessment systems to improve the quality of teaching, ensure fairness in evaluation, and improve the effectiveness of the interaction between students and teachers (Liang et al., 2021).

#### **Chatbots and virtual assistants**

Chatbots tailored to specific academic expertise and virtual assistants powered by AI technology are crucial in facilitating improved learning experiences for students. These advanced systems assist learners in real time by walking them through the homework processes, answering questions, and providing feedback (Winkler & Söllner, 2018). They are accessible 24/7, thus being able to assist outside of the classroom and at the student's most convenient time (Zawacki-Richter et al., 2019). This kind of assistance fosters self-paced learning where they independently interact with learning materials which translates to improved academic performance.

#### ***Interactive and Learning games***

Through the use of AI, interactive and educational games can be transformed into more powerful learning tools. AI and machine learning can be utilized to create captivating plots, customize stories based on user navigation, and present relevant feedback (Chen et al., 2020). This makes it possible for students to become engaged actively and fuel their creativity and critical thinking during the lesson. AI technologies actively integrate challenges, simulations, and entire virtual worlds into learning platforms, enabling problem solving and teamwork (Bai et al., 2021).

#### **Tailored learning**

Students exhibit a range of capabilities as well as unique preferences in how they learn. A conventional setting fails to meet these differences effectively. Here, the application of AI in education is beneficial. With AI, educational platforms are able to develop a learning experience for each student tailored to their individual wishes and preferences (Huang et al., 2019). In addition, the application of technology such as machine learning allows the system to adapt to each student's ways of understanding concepts, therefore lightening their cognitive burden (Woolf, 2020). The objective of AI in education seeks to satisfy students' individual requirements. It provides enhanced learning activities, individual educational plans, and many other specially designed AI features. As a result, students receive content and resources that match their learning preferences which helps increase engagement and improve learning (Zawacki-Richter et al., 2019).

### **Challenges and Ethical Implications in using AI in Psychology**

The integration of AI in psychology and psychological concepts has the potential to revolutionize the field. However, several challenges must be addressed to ensure the effective and responsible use of AI. One of the primary challenges is the need for high-quality, diverse, and representative data to train AI algorithms (Bundy et al., 2019). Additionally, the complexity of human behaviour and emotions poses significant challenges for AI systems to accurately model and predict psychological phenomena (Franklin et al., 2019). The use of AI in psychology raises several ethical concerns, including issues related to informed consent, data privacy, and potential biases in AI decision-making (Elish & Hwang, 2017). Ensuring transparency and accountability in AI-driven psychological interventions is crucial to maintaining trust and avoiding harm. The increasing use of AI in psychology may lead to changes in the role of psychologists and mental health professionals (Kidd & Murray, 2019). There is a need for professionals to develop new skills and competencies to effectively work with AI systems and interpret their outputs. The likelihood that learners and psychologists would become overly dependent on AI thereby reducing critical thinking, creativity and problem solving creates another challenge for the use of AI in education and psychology. The regulatory framework surrounding the use of AI in psychology is still evolving (Bauer et al., 2020). Ensuring compliance with existing regulations, such as the General Data Protection Regulation (GDPR), and developing new guidelines for AI-driven psychological concepts and practices are essential. Other challenges include;

1. Incorporating AI into the learning experience and psychological concepts without compromising academic integrity, ethical boundaries etc., and guaranteeing meaningful learning experiences is a challenge that educators are facing.
2. AI tools used in psychological research and concepts may unintentionally reinforce existing social or cultural biases. This would affect the growth and development of psychology and its concepts especially in areas where it has received little or no attention.
3. In learning, AI tools sometimes provide inaccurate, misleading and irrelevant information.

The integration AI in learning psychology and psychological concepts has transformed the way we understand human behaviour, cognition, and emotions. However, this rapid growth raises significant ethical concerns that warrant careful consideration. AI systems can perpetuate existing biases and discrimination if trained on biased data or designed with a particular worldview (Barocas & Selbst, 2019). In learning psychology, AI-powered adaptive systems may inadvertently reinforce stereotypes or disadvantage certain groups of students. The use of AI in psychological concepts often involves the collection and analysis of sensitive personal data. Ensuring the privacy and security of this data is crucial to maintaining trust and avoiding harm (Kamarinou et al., 2019). However, the increasing reliance on AI-powered tools raises concerns about data breaches and unauthorized use. Also, as AI becomes more pervasive in psychological concepts, ensuring informed consent and transparency becomes increasingly important. Clients and students have the right to know how AI is being used, what data is being collected, and how it will be used (Elish & Hwang, 2017). The over-reliance on AI in learning psychology and psychological concepts may lead to a loss of human touch and empathy (Kidd & Murray, 2019). This raises concerns about the potential dehumanization of relationships between psychologists, educators, and their clients or students.

### Methodology

The study was conducted using a descriptive survey research design. This technique involves interviewing or distributing a questionnaire to a sample of respondents in order to gather information (Orodho, 2003). According to Cohen and Manion (2005), the attractiveness of a survey is its universality or generalisability within specified parameters, its capacity to produce claims that are backed by substantial data, and its capacity to determine the level of confidence that can be placed in a collection of findings. The study's population consisted of final-year students reading psychology. This was due to their varied experiences with AI and psychology across different levels. 148 participants were randomly and conveniently sampled. A structured questionnaire was used to collect data from participants.

The data collected were analysed using descriptive statistics (mean and standard deviation). The study used the International Business Machines' Statistical Package for Social Sciences (IBM SPSS version 27) software to analyse the data. The mean of the 5-point Likert scale was used to determine if students agreed or disagreed with the statements. Students who were indecisive about a statement were considered to disagree with the statement. Thus, if the mean of a statement is 3.5 or above, then students agreed to the statement, otherwise, they disagreed. The standard deviations show how their views differ from one another.

### Findings and Discussions



**Research Question One: What are the benefits associated with using AI in the learning of psychology?**

The study sought to look into the benefits of using AI in psychology and psychological concepts and practices. The findings of the study are summarized in table 1 below.

**Table 1: Perceived Benefits of AI in learning Psychology**

Statements	Mean	SD
AI tools have helped me better understand psychological concepts	4.43	.83
AI tools helps me learn psychology concepts more efficiently	4.29	.95
AI tools enhance my ability to solve problems	4.12	.94
AI tools provide personalized learning experiences that cater to my individual needs in psychology	4.26	1.00
AI tools encourage me to take more responsibility for my own learning in psychology	4.50	.76
AI tools make learning psychology more engaging and interesting	4.43	.83
AI tools provide me with access to a wider range of resources and materials in psychology	4.29	.95
Using AI tools motivates me to explore psychological topics in greater depths	4.17	.93
AI tools has increased my confidence in applying psychological theories to real word scenarios	4.34	.89
Overall, using AI tools has positively impacted my learning experience in psychology	4.50	.76
Grand Mean/SD	4.33	.88

Source: Field work, 2024

Table 1 showed the descriptive statistics of the views of respondents about the benefits of AI in learning psychology. The results showed that students agreed to all the statements measuring their view on the benefits of AI in learning psychology. Specifically, students agreed to statements “AI tools have helped me better understand psychological concepts (Mean=4.43, SD=.83), AI tools helps me learn psychology concepts more efficiently (Mean=4.29, SD=.95), AI tools enhance my ability to solve problems (Mean=4.12, SD=.94), AI tools provide personalized learning experiences that cater to my individual needs in psychology (Mean=4.26, SD=1), AI tools encourage me to take more responsibility for my own learning in psychology (Mean=4.5, SD=.76), AI tools make learning psychology more engaging and interesting (Mean=4.43, SD=.83) among others. The overall mean of 4.33 and SD of .88 showed that students agreed with the statements measuring the perceived benefits of using AI in learning psychology. The overall standard deviation reveals that students share diverse views. Psychology students perceive AI as beneficial to their learning and use of psychological concepts although they differ on their views.

The integration AI technologies has the potential to greatly transform the academic landscape for psychology students. AI has created personalized learning experiences, provided adaptive feedback, and offered customized study materials specifically designed to meet individual students' needs. By examining data on students' learning patterns and performance, AI can pinpoint strengths and weaknesses, allowing for targeted interventions that enhance learning outcomes. AI-powered virtual tutors can give real-time help, clarify complex concepts, and deepen understanding of psychological theories. Research by Smith et al. (2019) and Lee and Garcia (2018) indicates that tools driven by AI can greatly enhance academic performance by boosting engagement, knowledge retention, and comprehension across various subjects. The flexibility and responsiveness of these AI systems allow students to learn at their own pace, get immediate feedback, and utilize resources that fit their learning styles. This tailored approach not only improves academic success but also fosters a genuine appreciation for the subject among psychology students. As we explore how AI affects psychology students' learning outcome, it is important to consider the wider implications of integrating AI into education. For example, how does AI influence students' critical thinking and problem-solving skills in their psychology courses? What role does AI play in promoting creativity and innovation among these students? Understanding the diverse effects of AI technologies on learning outcome can offer valuable insights for optimizing learning experiences and equipping students for success in our increasingly digital world.

**Research Question Two: What are the challenges associated with using AI in the learning of psychology?**

The study sought to look into the challenges associated with using AI in the learning of psychology. The findings of the study are summarized in table 2 below.

**Table 2: Challenges in using AI in learning psychology**

Source: Fieldwork, 2024.



Statements	Mean	SD
I find it difficult to understand how to use AI tools effectively	2.02	1.25
The AI tools I need are not always accessible or available when I require them	4.43	.83
AI tools often have features that are too complex or difficult for me to use	4.29	.95
AI tools do not provide solutions or feedback that are tailored to my specific needs.	4.43	.83
Using AI tools makes me feel overly dependent on technology for learning or problem-solving.	4.29	.95
I am concerned about the privacy and security of my data when using AI tools	4.43	.83
AI tools sometimes provide inaccurate or misleading information.	4.29	.95
AI tools do not always align with my specific learning objectives or course requirements.	4.12	.94
The cost of accessing or using AI tools is a significant challenge for me.	4.26	1.01
There is insufficient support or guidance available to help me effectively use AI tools.	4.50	.76
Grand Mean	4.11	.93

Table 2 showed the descriptive statistics of the views of students about the perceived challenges in using AI in learning psychology. The results showed that students agreed to all questions measuring their perception of the challenges in using AI in learning psychology except “I find it difficult to understand how to use AI tools effectively (Mean=2.02, SD=1.25). Students agreed to statements such as “The AI tools I need are not always accessible or available when I require them (Mean=4.43,SD=.83), AI tools often have features that are too complex or difficult for me to use (Mean=4.29, SD=.95), I am concerned about the privacy and security of my data when using AI tools (Mean=4.43, SD=.83), Using AI tools makes me feel overly dependent on technology for learning or problem-solving (Mean=4.29, SD=.95), AI tools sometimes provide inaccurate or misleading information (Mean=4.29, SD=.95). The grand mean of 4.11 and SD of .93 reveal that students perceive there are some challenges in using AI in learning psychology. The overall standard deviation reveals that students share diverse views. These challenges can place a barrier on students’ willingness to utilize AI in learning psychology and psychological concepts.

These findings reflect previous research that has highlighted the challenges of accessibility, privacy, and complexity as major obstacles for AI in higher education. For example, Zawacki-Richter et al. (2019) pointed out that limited access to AI resources and inconsistent support from institutions hinder their effective use in academic environments. Similarly, Xu and Ouyang (2022) found that students often hesitated to embrace AI because of worries about data privacy, their trust in the technology, and a feeling that it did not offer enough personalization. Additionally, the observation that students view AI tools as overly complex (Mean = 4.29) and believe these tools make them too dependent on technology (Mean = 4.29) aligns with existing research. Bundy (2019) argues that while AI can enhance learning, its benefits diminish when students see it as an obstacle to critical thinking and skill development, leading to concerns about its excessive use. Likewise, Woolf (2020) stated that AI systems need to be designed with user-friendly interfaces and feedback tailored to encourage student autonomy and active participation, rather than fostering dependence.

Worries about the accuracy and reliability of AI outputs (Mean = 4.29) also resonate with earlier findings. Zawacki-Richter et al. (2019) mentioned that despite improvements in AI accuracy, doubts about the quality of information and the potential for errors continue to be significant barriers for learners. This scepticism was echoed by Xu and Ouyang (2022), who highlighted that trust and reliability are key issues when assessing AI’s role in education and psychology. Interestingly, one particular item stood out: students disagreed with the statement, “I find it difficult to understand how to use AI tools effectively” (Mean = 2.02), indicating that, overall, they felt confident in their ability to navigate AI platforms when they were available. This finding contrasts with earlier studies, like those by Zawacki-Richter et al. (2019), which identified usability and literacy as major hurdles. This shift could suggest that today’s students are generally more comfortable with AI tools due to their increased exposure to digital technologies, pointing to a generational change in digital literacy.

**Research Question Three: What are the ethical implications in using AI in psychological concepts?**

The study sought to look into the ethical implications in using AI in psychological concepts. The findings of the study are summarized in table 3 below.

**Table 3: Ethical Implications in using AI Psychological Concepts**

Statements	Mean	SD
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AI in psychology has the potential to compromise the confidentiality of patient data.	4.02	1.32
The use of AI in psychological assessments may lead to biased outcomes based on flawed algorithms	4.03	1.27
I believe that AI should only be used in psychology if there are strict regulations to protect user privacy	4.10	.97
AI tools used in psychological research may unintentionally reinforce existing social or cultural biases.	4.20	1.10
The use of AI in psychological interventions should be transparent so that patients fully understand how their data is being used.	4.50	.76
I am concerned that AI in psychology could replace the need for human therapists, reducing the personal connection essential to therapy.	4.43	.83
AI applications in psychology should be subject to continuous monitoring to ensure they are ethically sound.	4.29	.95
The use of AI in diagnosing psychological conditions may lead to over-reliance on technology, undermining the importance of human judgment.	4.17	.93
Psychologists should have ongoing training on the ethical use of AI to ensure responsible integration into their practice.	4.12	1.22
AI in psychology should only be used if it complements, rather than replaces, the role of human psychologists in the decision-making process.	4.41	.91
<b>Grand Mean</b>	<b>4.22</b>	<b>1.02</b>

Source: Fieldwork, 2024.

Table 3 showed the descriptive statistics of the views of students about the perceived ethical implications of using AI in psychology. The results showed that students agreed to all the statements measuring their view on the ethical implications in using AI in psychology. This included but not limited to “AI in psychology has the potential to compromise the confidentiality of patient data (Mean=4.02, SD=1.32), The use of AI in psychological assessments may lead to biased outcomes based on flawed algorithms (Mean=4.03, SD=1.27), I believe that AI should only be used in psychology if there are strict regulations to protect user privacy (Mean=4.10, SD=.97) and AI tools used in psychological research may unintentionally reinforce existing social or cultural biases (Mean=4.20, SD=1.10). The grand mean of 4.22 and SD of 1.02 revealed that students perceived some ethical implications in using AI in psychological concepts. The overall standard deviation reveals that students share diverse views on the ethical implications of AI in psychological concepts.

Among the concerns raised, the most prominent was the belief that “The use of AI in psychological interventions should be transparent so that patients fully understand how their data is being used” (Mean = 4.50, SD = .76). This aligns with the stance of the American Psychological Association (2017), which highlights the critical need for informed consent and patient comprehension when incorporating technology into clinical practices. Xu and Ouyang (2022) also reported similar views, stressing that transparency and accountability should lie at the heart of AI design and application in psychology. Another well-rated concern was the fear that AI might replace human therapists and weaken the crucial personal connections that are essential in therapy (Mean = 4.43, SD = .83). This finding matches existing literature that suggests while AI can assist with certain diagnostic and therapeutic tasks, it can’t replace the relational aspects that are vital for effective clinical outcomes (Bundy, 2019). Woolf (2020) further supports this notion, arguing that AI ought to be seen as a tool to enhance, rather than substitute for, trained psychologists, given the irreplaceable role of human judgment and empathy in therapy. Additionally, students voiced worries about AI potentially introducing or boosting social and cultural biases (Mean = 4.20, SD = 1.10), as well as its likelihood to diminish human judgment in clinical decisions (Mean = 4.17, SD = .93). These concerns reflect the increasing global conversation about the risk of AI entrenching and perpetuating existing systemic discrimination, particularly when it’s trained on biased data (Zawacki-Richter et al., 2019). Similar findings by Xu and Ouyang (2022) indicate that it’s crucial to critically assess and monitor the use of AI in psychology to avoid discrimination and misdiagnosis. Importantly, students strongly agreed that AI should only be deployed with stringent regulations to safeguard user privacy (Mean = 4.10, SD = .97) and that psychologists need ongoing training to ensure ethical and effective use of AI (Mean = 4.12, SD = 1.22). These results resonate with Bundy’s (2019) view that continuous professional development and ethical awareness are key to protecting both clients and professionals as AI becomes more integrated into psychological practice.



### Conclusion and Recommendation

From the research results, it was concluded that students perceive AI as beneficial in learning psychological concepts and practices. However, they also perceive that there exists some challenges and ethical implications in using AI in learning psychology and psychological concepts.

Based on the research findings, it is recommended that:

- i. Educational institutions and psychology departments should work towards improving access to AI tools for psychology students by integrating them into learning management systems, providing institutional licenses, or offering training on free or open-source alternatives. Additionally, AI developers should focus on designing more user-friendly interfaces to reduce complexity and enhance usability.
- ii. Universities and AI developers should establish clear policies and guidelines regarding data privacy and security when using AI in psychology. Strict regulations should be implemented to protect user information, and students should be educated on ethical AI usage to minimize risks associated with bias and confidentiality breaches.
- iii. Follow-up studies with a more robust sampling procedure and analysis or a qualitative studies, such as interviews or focus groups, should be conducted to explore the contrasting perceptions of AI's benefits in psychological concepts and learning and identify gaps in understanding among participants.
- iv. Finally, insights from further analysis should be used to design targeted awareness or training programs, expert-led discussions for students to enhance understanding and effective use of AI in psychology so as to minimize ethical implications.

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