

The Reality of Using Artificial Intelligence in Higher Education from the Students' Perspective

- A Field Study at the University of Skikda – Department of Psychology -

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Receipt date : 18/07/2026 ; Acceptance Date: 27/09/2026

Abstract: This study aimed to investigate the reality of using artificial intelligence (AI) in higher education among psychology students. To achieve this objective, a descriptive approach was adopted. The study was conducted on a sample of 61 male and female students in the Department of Psychology at the University of Skikda. Data were collected using a questionnaire consisting of 20 items divided into two main axes. The gathered data were statistically analyzed using the Statistical Package for the Social Sciences (SPSS) by calculating frequencies and percentages.

The study revealed the following results:

- Psychology students possess clear knowledge and awareness of how to utilize artificial intelligence applications in scientific research.
- Students face various difficulties and challenges when using these artificial intelligence applications.

Keywords : Artificial Intelligence; Higher Education, Students' Perspective.

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1 – Introduction

In light of the rapid economic, social, and technological developments worldwide, Artificial Intelligence (AI) has emerged as a smart technology and a global system encompassing advanced manufacturing and engineering methods. It simulates human intelligence to produce autonomous machines capable of performing complex tasks and interpreting scientific data.

Universities are among the prominent institutions that have taken the initiative to benefit from this technology, as they represent the core environment for acquiring higher-order thinking skills, such as critical thinking, innovation, and creativity. Studies indicate that the adoption of AI applications by higher education institutions has yielded numerous advantages. These include increasing efficiency, improving the quality of education, and strengthening communication between professors and students, in addition to guiding students toward academic paths and majors that align with their interests and desires as well as promising opportunities. Consequently, the professor must adapt to these transformations and leverage technology to enhance the educational process. Experts contend that the pivotal role of the professor as a guide and mentor remains indispensable and cannot be replaced or altered; however, professors must develop their skills to keep pace with technological advancements while focusing on their core responsibilities in fostering critical and creative thinking among students and ensuring effective human communication both inside and outside the classroom. This mandates continuous learning and skill development in technology utilization on the part of the educator, all while preserving their essential function as an active agent in the educational process. Accordingly, the present study addresses the following central research question:

1.1– Research Problem and Question

The research problem is defined by the following main question:

What is the reality of using artificial intelligence in higher education from the perspective of psychology students at the University of Skikda?

The following sub-questions stem from this main question:

1. What are the uses of artificial intelligence in higher education from the perspective of psychology students?
2. What are the difficulties encountered in implementing artificial intelligence in higher education from their perspective?

1.2– Research Objective

- To uncover the actual reality of using artificial intelligence in the university environment.
- To identify the various aspects and applications of AI used by psychology students.
- To highlight the primary difficulties and obstacles that limit the full utilization of these technologies.

2– Theoretical Framework and Conceptual Approach

First: The Concept of Artificial Intelligence

- **General Definition:** It is a global system that includes manufacturing and engineering methods for smart devices and software. The goal of AI is to produce autonomous machines capable of performing complex tasks using reflective processes similar to those of humans.
- **John McCarthy's Definition:** "It is the science and engineering of making intelligent machines, especially intelligent computer programs. It is related to the similar task of using computers to understand human intelligence."
- **Martin's Definition:** "The science capable of building machines that perform tasks that require human intelligence when performed, such as logical inference, learning, and the ability to modify." (Sultani, 2025, pp. 318, 319).
- **Operational Definition:** It is a method or technique used by a machine to simulate human intelligence and accomplish tasks based on human experience and knowledge to assist in decision-making across various fields (Hashemi, 2024, p. 50).

Second: The Concept of Higher Education

It refers to the education that takes place within university colleges or institutes after obtaining the baccalaureate (secondary school certificate), representing the final stage of formal education(Humaidi Masouda et al., n.d., p. 170).

- **Operationally in Algeria:** It is the higher education system divided into the Bachelor's degree (3 years) and the Master's degree (2 years), through which students acquire high-level skills such as critical thinking, creativity, and academic innovation.

3– The Role of AI Applications in Higher Education

- Providing immediate evaluation of students and tracking their grades to improve academic performance.
- Offering continuous and instant feedback to students.
- Providing virtual agents (smart assistants) to answer learners' inquiries.
- Providing adaptive individual learning that matches each student's needs and pace of progress(Jaqreef, 2024, pp. 6–7).

4– Ethics and Risks of Using Artificial Intelligence

1. **Transparency and Credibility:** AI poses challenges related to the "black box" nature of certain algorithms, making it difficult to understand how scientific decisions are made or how plagiarism is detected.
2. **Quality and Human Innovation:** AI should not replace human creativity and intellectual depth; rather, it should remain a supportive tool for analysis and linguistic revision.

Behavioral and Security Risks: AI raises concerns regarding privacy breaches, behavioral manipulation, and the potential reduction of human critical thinking skills due to over(Yahia & Dailami, 2024, pp. 312–313)

5– Characteristics of Artificial Intelligence:

The characteristics of artificial intelligence include the following points:

- ✓ Utilizing intelligence in solving presented problems.
- ✓ The capacity for thinking and perception.
- ✓ The ability to acquire and apply knowledge.
- ✓ The capacity to learn and comprehend from past experiences and trials.

- ✓ The ability to utilize previous experiences and deploy them in new situations.
- ✓ The capacity to employ trial and error to discover various matters.
- ✓ The ability to respond rapidly to new situations and circumstances.
- ✓ The capability to handle difficult and complex scenarios.
- ✓ The capacity for imagination, creativity, and the understanding and perception of visual information.
- ✓ The capability to provide information to support administrative decision-making (**Chouini, 2025, p. 55**).
- ❖ E-learning offers several advantages to the modern educational process and is characterized by key features that make it essential, including:
 - ✚ Enabling student-professor interaction via interactive whiteboards while providing real-time engagement tools.
 - ✚ Allowing students to use computer-connected microphones to enrich discussions with the professor.
 - ✚ Enabling professors to gauge student engagement and responsiveness to lesson points broadcast live by conducting quick polls.
 - ✚ Allowing instant and rapid surveys on student engagement with educational content, enabling professors to perform immediate assessments.
 - ✚ Providing professors with the capability to guide students on virtual field trips or tours across any educational website or internet space. E-learning strives to achieve several objectives, categorized as follows: First: For the Student:
 - ✚ Developing skills and competencies in utilizing information and communication technologies (ICT).
 - ✚ Delivering scientific content through reading, audio, or visual formats tailored to individual student capacities.
 - ✚ Providing students with diverse information sources by linking the educational platform to external academic sites—moving beyond the professor as the sole source of knowledge—and expanding student connections via global and local networks.

- ✚ Utilizing various communication channels, such as email and virtual classrooms, to exchange educational experiences, views, discussions, and dialogues, thereby enhancing student–faculty interaction. Second: For the Professor:
 - ✚ Enhancing skills in using modern educational technologies.
 - ✚ Evolving the professor's role within the educational process to keep pace with rapid scientific and technological advancements.
 - ✚ Addressing faculty shortages in certain academic sectors through the deployment of virtual classrooms. • Assisting professors in preparing instructional materials for students while bridging experience gaps for some educators (**Chouini, 2025, pp. 85–86**).

- **Active Learning & Academic Support**

Artificial intelligence works to transform higher education from traditional methods into active learning techniques through the deployment of robotics and virtual assistants. AI-driven education grants independence to students, enabling self-directed learning and the retrieval of knowledge in the easiest manner without squandering time and effort. Moreover, it assists educators in detecting risks and difficulties facing students, thereby offering them the opportunity to address these issues swiftly and with greater precision. Consequently, this empowers faculty members to deliver richer, more accessible assistance to students (**Abdish, 2025, pp. 197–198**).

6– Methodology and Tools

- **Research Approach:** The **descriptive approach** was adopted as it is the most suitable method for describing and interpreting phenomena as they exist in reality.
- **Timeframe:** The field study was conducted in May 2026.
- **Sample:** A random sample consisting of 61 male and female students from the Department of Psychology at the University of Skikda was selected via social media networks.

- **Data Collection Tools:** Based on the theoretical literature and previous studies (e.g., Rahali and Latrash), an electronic questionnaire was designed. The questionnaire used a 3–point scale (Always, Sometimes, Rarely) and was divided into two main axes:
 - **Axis 1:** Uses of artificial intelligence in higher education (1–7).
 - **Axis 2:** Difficulties in implementing artificial intelligence (8–14).
- **Statistical Methods:** Data were statistically processed using frequencies and percentages via SPSS.

Psychometric Properties:

- **Validity:** To ensure the validity of the questionnaire, it was submitted to a panel of experienced professors and experts in psychology at the University of 20 August 1955 – Skikda. By calculating inter-rater validity (content validity ratio), a result of {CVR} 0.88 was obtained. Since 0.88 is greater than 0.75, the questionnaire is deemed valid.
- **Reliability:** To measure the reliability of the questionnaire, Cronbach's alpha coefficient was calculated, yielding a value of 0.71. This high value indicates the internal consistency and reliability of the questionnaire items.

7– Results and Discussion

of (Rahali & Latrash, 2025) regarding students' limited knowledge of programming basics and the difficulty of fully adapting to AI-based learning due to insufficient institutional Results and Discussion

Axis 1: Students' Responses Regarding AI Applications and Uses

Item No.	Always (Freq)	Always (%)	Sometimes (Freq)	Sometimes (%)	Rarely (Freq)	Rarely (%)
01	24	38.1%	33	52.4%	4	9.5%
02	42	66.7%	19	30.2%	2	3.2%
03	20	31.7%	27	42.9%	16	25.4%
04	26	41.3%	23	36.5%	14	22.2%
05	29	46.0%	26	41.3%	8	12.7%
06	26	41.3%	26	41.3%	11	17.5%

07	35	55.6%	15	23.8%	11	20.6%
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- **Analysis and Commentary:** The table clearly shows that students heavily rely on AI. **66.7% always** use AI for **interpreting and analyzing information**, and **55.6% always** use it to **expand research to reach results**. This reflects students' awareness of the importance of these tools in saving time, enhancing scientific research, and overcoming academic writing challenges.

Axis 2: Students' Responses Regarding the Difficulties of Implementing AI

Item No.	Always (Freq)	Always (%)	Sometimes (Freq)	Sometimes (%)	Rarely (Freq)	Rarely (%)
08	5	7.9%	15	23.8%	43	68.3%
09	6	9.5%	39	61.9%	18	28.6%
10	9	14.3%	34	54.0%	20	31.7%
11	21	33.3%	29	46.0%	13	20.6%
12	22	34.9%	25	39.7%	16	25.4%
13	34	54.0%	17	27.0%	12	19.0%
14	30	47.6%	23	36.5%	10	15.9%

- **Analysis and Commentary:** The table highlights notable structural and training challenges. The **absence of specialized training courses represents the largest obstacle at 54% (Always)**, followed by the **weak promotion of an AI culture at 47.6% (Always)**. Meanwhile, the concern that AI-driven research lacks quality and originality stood at **33.3%**. Conversely, fears regarding privacy breaches were very low, at only **7.9%**.

✓ General Discussion of the Results

The empirical findings demonstrate that AI technologies have heavily entered the academic environment at the University of Skikda, particularly in data analysis, summarizing papers, and enhancing academic phrasing. This aligns with the study of

(*Yahi & Dilmi, 2024*), which confirmed that AI effectively accelerates research and helps identify and improve scientific gaps.

On the other hand, students face substantial barriers related to poor financial support, a lack of specialized training programs, and the fact that some AI outputs lack scientific originality. This intersects with the findings guidance

Following the presentation, analysis, and interpretation of the field study results in light of the research questions posed, it became evident that artificial intelligence applications are increasingly utilized in university institutions, particularly in data analysis and interpretation, as well as in discovering scientific literature for researchers. According to the respondents' feedback on the first dimension—AI Applications percentage distributions revealed that 66.7% indicated the use of AI in quantitative and qualitative data analysis and interpretation. Furthermore, 46.0% reported acquiring research skills with greater ease, including reviewing literature and previous studies, summarizing research papers, and comparing references to save time and effort for students, alongside academic writing, enhancing linguistic formulation, and addressing research problems in scientific inquiry. These findings align with the results of researchers Abdelmalek Yahi and Rawya Deilmi, whose study confirmed that AI contributes to accelerating scientific research analysis, saving researchers time and effort, and identifying and bridging research gaps. Regarding the second dimension—Challenges of Implementing Artificial Intelligence in University Education Among Students—a notable proportion (33.3%) indicated that AI-driven research in university learning lacks quality and originality. Additionally, 34.9% reported a lack of appropriate financial support for implementing AI technologies, while 54.0% cited the absence of training programs and courses for technical application. Moreover, 47.6% highlighted the weak dissemination of an AI culture and its utilization in learning. These results demonstrate that students in the Department of Psychology encounter significant difficulties when applying AI. This is consistent with the findings of Rahali Halima and Latrech Leila, whose research revealed several factors associated with the inability to adapt to and implement AI-based learning methods in education, likely attributable to a lack of awareness regarding the importance of these applications and limited knowledge of programming fundamentals. From this, we conclude that modern technology plays a pivotal role through the integration of multimedia—such as audio and video—and interactive platforms that support communication between instructors and students,

rendering the learning process more interactive and inclusive. Artificial intelligence represents a strategic transformation that enhances the quality of the educational process and elevates it to higher standards by providing innovative educational tools, such as virtual reality and simulation technologies, to stimulate engagement and comprehension, personalize educational content according to individual student needs, design effective assessment tools, and efficiently analyze big data to identify students' strengths and weaknesses. This contributes to fostering interaction and understanding, alongside analyzing students' research needs, providing guidance to library resources, and delivering smart solutions to enhance services and facilitate information access within university libraries.

This aligns with the findings of the study conducted by Khaled Chouini regarding ChatGPT technology, which represents one of the most prominent manifestations of generative artificial intelligence and one of the most widely adopted technologies in educational and academic circles today, significantly enhancing the capacity to simulate human intelligence. It is utilized to provide essential support to both professors and students alike, drawing upon several core technologies such as deep learning, machine learning, and neural networks. The functionality of this technology extends beyond text analysis, translation, and summarization to generating new creative content, including text, images, and videos. Artificial intelligence applications actively contribute to assisting professors in refining and enhancing traditional teaching methods within both physical classrooms and remote environments via electronic learning platforms. They facilitate lesson preparation, lecture design, and the creation of compelling, innovative presentations—thereby ensuring the customization of curricula based on students' needs and preferences while improving assessment processes and delivering automated, consistent, and accurate feedback. Furthermore, AI applications analyze student performance data to design specialized, innovative educational content tailored to individual capacities and requirements, offering immediate feedback and psychological support to increase classroom interaction and enhance personalized learning experiences. The integration of AI applications contributes

4,87to making contemporary curricula more interactive and aligned with modern requirements. By analyzing student data, AI transforms educational resources into smart content—such as digital books, studies research papers, video lectures, educational 3D models, panoramas, and 5b, n 4update curricula according to the specific needs and potential of a individual student.

8- Conclusion and Recommendations

Despite the spectacular prospects, accuracy, and speed that AI brings to higher education and scientific research, unguided use can negatively impact the quality and authenticity of academic outcomes. Based on the measured results, the study provides the following recommendations:

- ✓ Conduct more comprehensive academic research regarding the application of AI technologies in Algerian universities.
- ✓ Organize continuous training courses and workshops for both students and researchers to facilitate safe and effective AI utilization.
- ✓ Encourage faculty members to integrate artificial intelligence into teaching and assessment methodologies.
- ✓ Provide interactive educational platforms supported by AI that are freely accessible to students.
- ✓ Formulate and enforce legal and ethical frameworks (academic honor codes) to regulate AI usage in research and publishing.

9. References

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