Main Issues of Pedagogy and Psychology
e-ISSN 1829-1295 (Online)
miopap.com/en

Volume 4 · Issue 2 · 2026
Pages 1510–1522

Artificial Intelligence in Academic Research: Evidence from Psychology Faculty in Algerian Universities

Dr. ABDI Samira

University of Bejaia, Algeria, Email: samira.abdi@univ-bejaia.dz , ORCID: 0009-0007-3539-9559

Received: 01/08/2026 | **Accepted:** 23/10/2026 | **Published:** 22/11/2026

ABSTRACT

This study looks at how psychology lecturers in Algerian universities can strengthen the scientific base of their discipline by using artificial intelligence (AI) tools in their research and by helping to close current gaps in knowledge. It has three aims: to map the AI tools that are relevant to research work, to identify the best ways of putting them to use, and to analyses the main obstacles researchers meet along the way. A descriptive-analytical design was adopted, and an online questionnaire was completed by 188 lecturers from psychology departments across the country.

Websites and online platforms were the main channel through which respondents had learned about AI tools (53%). Semantic Scholar was the tool most often used to locate scientific literature (55%), while Perplexity was the first choice for searching and analyzing content within files and texts (48%). The authors conclude that universities should provide lasting financial and technical support for AI adoption, because such support is needed to raise researchers' efficiency and output in a rapidly changing digital academic environment.

Keywords: Artificial intelligence; scientific research; Psychology faculty; Algerian universities; AI tools; Academic research; Digital transformation; Research challenges; Literature search.

1. INTRODUCTION

The rapid spread of artificial intelligence (AI) into many areas of daily life has sped up technological change and, on balance, has had a favorable effect on science and knowledge-based activity around the world. This fast pace has nevertheless brought psychological and social side effects, chiefly a sense of uncertainty and unease among people who have little grounding in scientific research and its methods (Long & Magerko, 2020).

Universities in the twenty-first century are under constant pressure to revise their programmers and strategic directions so as to keep up with global change, above all in science and technology. In this setting, Algerian higher education institutions have progressively brought AI technologies into their three core missions of teaching, research and community service, hoping to improve institutional performance and academic output (Othmane, 2024).

AI is increasingly seen as a strategic instrument for producing knowledge through full knowledge-management cycles: acquiring, storing, processing and interpreting information, then applying it to solve problems and deliver new services. It also helps organizations complete tasks faster and more efficiently, through applications such as expert systems, artificial neural networks, fuzzy logic and genetic algorithms, which are particularly valuable for administrative work and decision-making (Zawacki-Richter et al., 2019).

Realizing this potential requires organizations to have enough expertise to design, deploy and run AI-based solutions at scale. Their central task is therefore to choose effective tools, set up suitable operating processes and adopt sound management practices, so that AI contributes to their strategic goals (Miao & Holmes, 2023).

As researchers working on AI, we see it as our responsibility to bring scholarly efforts together, to make scientific knowledge simpler and easier to grasp, and to enrich academic debate on the major questions of our time through rigorous, evidence-based work. In doing so we hope to narrow existing knowledge gaps and extract the greatest benefit from the AI revolution for the information society in general and for scientific research in particular.

2. RESEARCH PROBLEM

Psychology lecturers in Algerian universities are constantly looking for advanced services that match their changing research needs. As more and more AI tools now promise sophisticated solutions for research tasks, this study sets out to identify the most promising of them, to measure how far lecturers use them and how useful they find them, and to examine the difficulties that arise when these tools are built into the research process.

The research problem can therefore be stated as a single question:

What is the current state of AI use in scientific research, and what challenges does it raise, according to psychology faculty members in Algerian universities?

3. SIGNIFICANCE OF THE STUDY

The study matters first because of its link to scientific research, which is a pillar of academic work and a main engine of social progress. Research is the core of knowledge development and innovation in present-day Algerian society.

Its value is also reinforced by its focus on AI tools and the advanced technological services they offer to support research. These tools can be applied across many fields and disciplines and can raise both the quality and the efficiency of research.

4. OBJECTIVES

The study pursues the following objectives:

- to identify the AI tools that can be used at different stages of scientific research;
- to measure how far psychology lecturers in Algerian universities use AI tools in their research;
- to explore effective ways of exploiting AI tools in scientific research; and
- to document the difficulties these lecturers face in using and adopting AI tools for research.

5. RESEARCH QUESTIONS

The study tries to answer four questions:

- Which AI tools can be used in the scientific research process?
- Which of these tools do psychology lecturers in Algerian universities currently use in their research?
- What are the most effective ways of benefiting from AI tools in research?
- What obstacles do these lecturers meet when using AI tools and trying to benefit from them?

6. SCOPE, POPULATION AND SAMPLE

6.1 Scope

- **Subject:** AI tools applicable to scientific research in psychology departments.
- **Human:** faculty members of psychology departments in Algerian universities.
- **Time:** the first semester of the 2025/2026 academic year.
- **Place:** psychology departments in Algerian universities.

6.2 Population

The population consists of all faculty members teaching in psychology departments of Algerian universities during the first semester of 2025/2026.

6.3 Sample

The sample comprises 188 faculty members drawn at random from this population during the same semester. It was built to reflect the main characteristics of the population as faithfully as possible.

7. METHODOLOGY AND INSTRUMENTS

A descriptive-analytical design was chosen because it fits the nature and aims of the study. It allows data on the topic to be gathered, organised and analysed systematically, so that the findings can be interpreted clearly and generalised to the study population.

Three instruments were used to collect data:

- a thorough review of the relevant scholarly literature;
- a structured questionnaire; and
- semi-structured individual interviews.

8. THEORETICAL FRAMEWORK

8.1 Defining artificial intelligence

AI is one of the basic branches of computer science and a central pillar of today's technology industry. The term has two parts. "Intelligence" refers to the capacity to perceive new or changing situations, understand them and learn from them, which are the three keys of intelligence: perception, comprehension and learning. "Artificial" designates whatever is made or produced by human activity, as opposed to natural beings and phenomena that appear without human intervention. AI can thus be broadly defined as human-made intelligence built into machines and computer systems, in a field of science devoted to developing intelligent machines able to imitate human cognitive abilities (Russell & Norvig, 2021).

Other authors describe AI as a family of systems and devices designed to reproduce human intelligence by carrying out given tasks on the basis of data collected from their environment (Zawacki-Richter et al., 2019). It has also been defined as the branch of computer science that designs and builds systems and programs able to simulate human intelligence and so perform complex tasks, once reserved for people, that call for reasoning, learning, planning and decision-making (Malik, Tayal, & Vij, 2019).

8.2 AI in research and in society

The part played by AI in scientific research and everyday life keeps growing and now covers a widening range of sectors in Algeria. Thanks to its speed of development and wide capabilities, AI can support social stability and reduce digital divides, which makes it a route towards a society that includes everyone (Miao & Holmes, 2023).

In recent years, applications that once seemed purely speculative have become real, with strong positive effects in medicine, public health, research and education. This standing makes AI a fundamental and effective force in shaping the future of Algerian society (Othmane, 2024).

Scientific research in all its branches is also a cornerstone for meeting the needs of the labour market, because it supplies qualified human resources with varied skills who can carry out development-oriented policies and programmes.

AI itself was born from the ambition to build systems whose intelligence matches or even exceeds that of humans. The speed of technological progress has strongly empowered the research sector in Algeria and allowed major qualitative advances in recent years (Russell & Norvig, 2021).

8.3 Characteristics of AI

The characteristics of AI follow from its basic goal of creating intelligent machines that simulate human behaviour. The simulation goes beyond copying behaviour: it uses methods similar to human problem-solving, together with an unusual ability to weigh many hypotheses at once with great accuracy and speed. Following Russell and Norvig (2021), AI has several key features, which can be grouped as follows.

Cognitive characteristics

- **Reasoning and perception:** analysing information and grasping logical relations.
- **Learning from experience:** drawing knowledge from data and earlier experience, applying it, and steadily improving performance.

- **Generalisation and adaptation:** carrying earlier knowledge over to new situations and problems.
- **Responsiveness to change:** adjusting quickly and effectively to unforeseen circumstances.

Operational characteristics

- **Solving complex problems:** analysing difficult situations that involve many variables.
- **Deciding under uncertainty:** reaching sound decisions despite missing information or ambiguity.
- **Prioritising:** judging the relative importance of elements and information in a given context.
- **Creativity and visualisation:** producing new ideas and solutions, and interpreting visual input (computer vision).

Supportive characteristics

- **Decision support:** supplying accurate, timely information and analysis to help people make informed choices.

AI is also notable for offering organizations systematic ways of solving problems through precise analysis. It extends the cognitive reach of decision-makers by proposing solutions to complex problems that go beyond the limits of traditional human analysis, and does so in very short times. At bottom, AI studies the logical patterns of human thought and reproduces them in computer systems. One of its chief advantages is relative stability: unlike people, it is not affected by tiredness or forgetfulness, although it can still reproduce biases present in its training data (Russell & Norvig, 2021; Miao & Holmes, 2023).

9. AI TOOLS FOR SCIENTIFIC RESEARCH

AI tools are among the modern instruments on which Algerian researchers increasingly depend when preparing scientific studies. They now cover a wide range of functions, described below by category.

9.1 Literature search and collection

AI-powered tools for finding and gathering academic references have progressed considerably in recent years. The most notable are:

- **Google Scholar:** among the most widely used platforms by Algerian researchers; it searches trusted databases and academic institutions and ranks results by relevance and scholarly influence.
- **Elicit:** a research assistant built on natural language models that summarises relevant papers and extracts their key information.
- **Publish or Perish (POP):** a program that analyses bibliometric indicators of publications and authors and so helps assess scholarly impact.
- **Semantic Scholar:** an intelligent academic search engine backed by the Allen Institute for AI; besides finding papers, it uses advanced techniques to grasp the semantic context of research, and its academic graph covers more than 200 million papers (Kinney et al., 2023).

Many other tools also speed up research work and make the collection and organization of references more accurate and smoother.

9.2 Searching within files and texts

AI tools built for searching inside texts and documents have become essential for Algerian researchers and AI practitioners. They allow advanced search within documents and can extract and gather relevant passages according to keywords and context. The main ones are:

- **Data Search:** an advanced search engine offering summaries and structured data drawn from varied research datasets.
- **Scite:** an analytical tool that helps researchers judge the quality of citations and the strength of evidence in a paper.
- **Perplexity:** a conversational search engine that joins the precision of classic search with the power of large language models, so researchers can ask questions in natural language and get full answers with reliable sources.
- **Emergent:** a tool for tracking, classifying and analyzing contradictory information and news stories circulating online.

- **Talk to Books:** an experimental Google tool for searching inside books with natural-language questions instead of keywords.
- **Text Generation:** a text-generation technology that supports summarizing and extracting the main points of long texts.

Together, these tools mark a qualitative shift in research practice in Algeria, since they let researchers pull relevant information out of huge volumes of data in very little time.

9.3 Academic writing and paraphrasing

AI tools for text generation and academic writing have become basic resources for Algerian researchers and AI specialists. They can produce academic texts and articles from supplied keywords and offer several stylistic and structural alternatives. The most proéminent are:

- **ChatGPT:** one of the best-known text-generation tools, available in several languages including Arabic; it helps draft academic text, summarise content and generate research ideas.
- **DeepSeek:** an advanced model that handles Arabic and stands out for its grasp of context and precise academic wording, which makes it especially useful for Arab researchers.
- **Wordtune:** a paraphrasing and text-improvement tool that helps researchers make sentences clearer, more professional and more fluent.
- **Rytr:** an intelligent writing platform that supports high-quality Arabic content.
- **Essay Bot:** a tool for academic essays and research writing, with Arabic support.
- **Kattab:** a complete Arabic smart-writing platform designed for the needs of Algerian researchers and Arabic content creators.

These tools understand context and complex linguistic structures, which lets Algerian researchers write coherent, academically sound texts while spending far less time and effort on writing and editing (Miao & Holmes, 2023).

9.4 Statistical data analysis

Statistical analysis tools are a foundation on which researchers in many disciplines increasingly rely. Among the best known are:

- **Microsoft Excel:** one of the most common and basic analytical tools, with built-in statistical functions from descriptive statistics to correlation and regression.
- **IBM Watson:** a full AI platform offering advanced predictive analytics.
- **Julius AI:** an intelligent statistical assistant that lets researchers analyses data through natural-language commands.
- **SPSS Statistics:** the statistical package most familiar in Algerian academic circles, covering tests from descriptive to inferential.
- **SAS:** an advanced analysis system widely used for predictive and advanced analytics.
- **JMP:** a tool centered on visual data exploration that combines statistical power with ease of use.

These tools can handle large datasets, yield deep analytical insight and produce accurate statistical reports, so that researchers can base their decisions on thorough analysis.

9.5 Mind mapping, visualization, presentation and indicators

These tools are important for turning abstract ideas and complex data into visual forms that academics can grasp easily. The main ones are:

- **Gamma:** an intelligent presentation platform that turns text and concepts into professional slides within minutes.
- **Canva:** a design platform with AI features for creating presentations, infographics and mind maps.
- **Microsoft PowerPoint:** the traditional presentation tool, now enhanced with AI functions.
- **MindMup / Mindly:** applications for building interactive mind maps that help researchers organise complex ideas.

- **World Bank Data:** a global platform giving access to thousands of international development indicators.
- **ContextMinds:** an AI-based tool for content discovery and mind mapping.

By converting complex data and abstract concepts into clear visuals, these tools make it easier for knowledge to circulate among Algerian academics.

9.6 Language editing and proofreading

AI-based editing and proofreading tools are among the most important aids for researchers who want to produce rigorous, well-written texts. Examples include:

- **Grammarly:** one of the most widely used proofreaders in the world, which checks grammar, spelling and style.
- **Hemingway Editor:** improves readability by analysing sentence length and syntactic complexity.
- **Wordtune:** specialises in intelligent paraphrasing and stylistic improvement.
- **Microsoft Word:** includes an advanced built-in language checker powered by AI.
- **QuillBot:** combines proofreading, paraphrasing and translation, with growing support for Arabic.
- **Sapling:** a smart proofreading platform made for researchers and professionals.

Steady improvement in Arabic support makes these tools more and more useful to Algerian researchers.

9.7 Machine translation of academic texts

Machine translation tools are indispensable because they give researchers access to the latest international developments in their fields. Prominent examples are:

- **DeepL:** known for very accurate, context-aware translation.
- **Google Translate:** the most widely used free translator, much improved by neural-network technology.
- **Reverso:** provides accurate translations along with rich examples in context.
- **MemoQ:** a professional tool widely used for academic and technical translation.
- **Wordfast:** a professional suite for managing translation workflows.
- **Smartcat:** an integrated platform that combines machine translation with human intervention.

They allow Algerian researchers to follow world scholarship in their fields and to contribute to it, both locally and internationally.

9.8 PDF merging and formatting

Tools for handling PDF files help researchers organize and manage their documents efficiently. The main ones are Smallpdf.com, I Love PDF, PDF24.org, Adobe Acrobat Pro, PDFescape and Soda PDF. They simplify document management, save time and preserve quality at each processing stage.

9.9 Reference management

AI-assisted reference managers are central to the research process, offering complete solutions for organizing and citing sources. Mendeley is a leading example: it lets users search the full text of their references, reach relevant passages quickly, and add annotations and notes.

Other supporting tools are Zotero (an open-source manager widely used in Algerian universities), EndNote (a full citation and reference management system) and Researcher (a platform for following new publications across disciplines).

9.10 Publishing and journal selection

Tools that help improve research quality and find a suitable journal is essential for Algerian researchers. They include Journal Finder, Springer Journal Suggested and Journal Guide, which help authors pick appropriate publication venues and check that their work fits a journal's scope and standards.

10. CHALLENGES OF USING AI IN SCIENTIFIC RESEARCH

Over the past decade AI has undergone an unprecedented revolution with deep consequences for Algerian academic life. The speed of this change has forced scientific institutions, especially those that do research, to update their

policies, methods and strategies. These shifts have opened new prospects for psychology scholars in Algerian universities to build AI literacy at every stage of the research process.

Algerian higher education is increasingly turning to AI as a lever for modernization, with notable benefits but also real challenges (Othmane, 2024). Against this background, scientific research and foresight in the light of AI should become urgent priorities and take a central place on the agendas of the heads of psychology departments.

10.1 External challenges

The following outside pressures shape the research environment in Algeria:

- fast technological and informational change;
- the demands of globalisation and democratic transformation;
- social, demographic, environmental and economic pressures;
- regional and geopolitical shifts.

10.2 Internal challenges

Within Algerian universities themselves, the main difficulties are:

- the move to new academic models;
- the cultural and socio-economic diversity found in academic settings;
- Growing professional pressure;
- Economic considerations taking precedence over research priorities;
- Changing labour-market requirements;
- A lack of digital infrastructure in institutions and research centres.

10.3 Strategic importance of foresight

Thinking about the future is vital for sustaining research in Algeria. International forums stress the need to:

- Développe foresight studies;
- Spread a proactive scientific culture;
- Encourage interest in future studies inside research institutions;
- Use digital progress and AI applications to draw up comprehensive strategic plans;
- Re-assess research priorities in the light of accumulated knowledge;
- Build realistic yet ambitious scenarios able to engage with the growing weight of AI.

10.4 AI literacy as a core requirement

Developing AI literacy among Algerian academics should aim to:

- give individuals the means to understand AI applications in depth;
- strengthen skills in designing AI applications;
- prepare researchers to make good use of what AI produces;
- Allow technological developments to be followed continuously.

10.5 Limits and difficulties of AI in research

Although AI applications bring clear benefits to research in Algeria, several difficulties may prevent their best use:

- the high cost of adopting, updating and maintaining AI tools;
- ethical and behavioral worries linked to dependence on AI systems;
- limited adaptability when the same data is processed repeatedly;
- job losses caused by AI replacing human labor;
- Inadequate digital infrastructure in many research institutions, especially outside the large cities (Othmane, 2024; Miao & Holmes, 2023).

11. REVIEW OF PREVIOUS STUDIES

A growing body of work has examined the adoption, benefits and difficulties of AI in higher education and academic research. The studies below, international and Algerian, frame the present investigation.

- **Zawacki-Richter et al. (2019)** carried out a systematic review of research on AI applications in higher education, retaining 146 articles published between 2007 and 2018 out of 2,656 identified. They grouped the applications into academic support services and institutional and administrative services, and observed that the literature barely reflects on the challenges and risks of AI, is weakly tied to pedagogical theory, and needs further work on ethical approaches.
- **Long and Magerko (2020)** proposed a definition of AI literacy as a set of competencies that allow people to evaluate AI critically, to communicate and collaborate with it and to use it as a tool, and derived design considerations for learner-centred AI. Their framework is a useful reference for the training needs identified in this study.
- **Winkler and Kiszl (2021)** surveyed academic library directors in Hungary on AI. Attitudes were mostly positive, with AI seen as a strategic opportunity; about 25% of respondents were already using it, chiefly for information retrieval and routine data processing.
- **Miao and Holmes (2023)** wrote UNESCO's guidance on generative AI in education and research. It calls for regulation that protects data privacy, for ethical validation of AI systems before use, for a human-centred approach, and for programmes that build human capacity so that AI benefits teachers, learners and researchers.
- **Lounansa (2024)** studied the attitudes of a random sample of 120 Algerian researchers towards AI in scientific research. Attitudes were positive at a rate of 84.1%, although the researchers reported a variety of challenges, and an optimistic reform scenario emerged at a rate of 70.3%.
- **Othmane (2024)** examined the benefits and risks of AI for students and teachers in Algerian higher education. The study points to gains such as personalised learning, better engagement and more efficient use of resources, and to specific difficulties of integration in developing countries such as Algeria.
- **Belmir and Daira (2025)** surveyed 567 Algerian researchers, university professors and doctoral students, about AI applications in their academic work. Attitudes were favourable, with some concerns that, according to the authors, continuous training and suitable academic guidance can address.

Synthesis: Taken together, these studies show that AI offers real opportunities for research and for institutional services, that Algerian academics generally view it favourably, and that its integration remains uneven where resources are limited. Concerns about ethics, privacy and reliability, together with the need for training, recur across the literature. This points to structured strategies, namely formal training, clear policies and frameworks adapted to the local context, if AI adoption in Algerian higher education is to be effective, durable and ethically responsible.

12. DATA COLLECTION INSTRUMENTS

12.1 The questionnaire

An online questionnaire served as the main data-collection tool. It was organised in four sections:

1. basic demographic data;
2. AI tools applicable to scientific research;
3. use of AI tools in research by psychology faculty in Algerian universities;
4. benefits and challenges of using AI tools in scientific research.

12.2 Validation of the instrument

Expert review. The questionnaire was examined by AI specialists from Algerian universities, whose suggestions improved its clarity, scientific relevance and overall quality.

Pilot test. A pilot was run with 23 participants who were not part of the main sample. Its purpose was to check reliability, validity and clarity, and the instrument was adjusted according to the results to improve its psychometric properties.

These steps gave the instrument methodological soundness and added credibility to the findings in the Algerian academic setting.

12.3 Personal interviews

The researcher also held individual interviews with AI specialists. These formed a methodological cornerstone for building both the theoretical and the empirical parts of the study, and they contributed in three main ways:

- **A broad background:** the discussions gave a practical picture of how AI tools are currently used in research in Algerian universities.
- **Identifying real tools:** they helped map the AI applications that Algerian specialists actually rely on.
- **Guiding the research path:** what the interviews revealed was used at every stage of the study.

The interviews covered three dimensions: a diagnostic one (which tools are used most and work best), a practical one (how these tools operate in the research context of Algerian universities) and a forward-looking one (how the tools may develop and improve).

Methodologically, the interviews strengthened credibility by drawing on Algerian experts and practitioners, tied theory to field practice in Algerian universities, and enriched the content with practical insights that deepened the analysis. They illustrate a kind of field study that combines scientific method with applied experience, which keeps the research realistic and relevant to the real needs of the Algerian academic community.

13. RESULTS

Theme 1: Demographic data

Table 1: Distribution of the sample by demographic variables

Variable	Category	Frequency	Percentage
Academic degree	Bachelor's	15	8%
	Master's	67	36%
	Assistant Professor	86	46%
	Associate Professor	13	7%
	Professor	7	4%
Gender	Male	88	47%
	Female	100	53%
Workplace	Private university	165	88%
	Public university	23	12%
Place of residence	City	93	49%
	Village	58	31%
	Rural / remote area	37	20%
Years of university service	Less than 5 years	25	13%
	5-15 years	95	51%
	More than 15 years	68	36%

The sample contained 188 faculty members from psychology departments in Algerian universities. The main points are these:

- **Degree:** assistant professors and master's holders together make up 82% of the sample.
- **Gender:** the split is fairly even, with women slightly ahead (53%).

- **Workplace:** most respondents work in private universities (88%).
- **Residence:** about half live in a city (49%), roughly a third in a village (31%) and a fifth in a rural or remote area (20%).
- **Experience:** over half have moderate experience (5-15 years) and more than a third have long experience (over 15 years).

These figures provide the background needed to read the answers on AI use in research in the Algerian academic setting.

Theme 2: Awareness of AI tools in research

Table 2: Awareness of AI tools used in scientific research

Question	Response	Percentage
Are you aware of AI tools used in scientific research?	Yes (168)	89%
	No (20)	11%

Table 3. Sources of knowledge about AI tools

Source	Frequency	Percentage
Websites	112	53%
Self-learning	42	20%
Workshops at universities / research centres	32	15%
Specialised conferences / seminars	27	12%
Total	213	

Interpretation: most respondents (89%) said they knew of AI tools that can be used in research. Their main source of knowledge was websites (53%), followed by self-learning (20%) and university workshops (15%). Algerian faculty members therefore depend heavily on online resources and on teaching themselves to acquire AI skills.

Theme 3: Use of AI tools in research

Table 4: Use of AI tools in research

Question	Response	Percentage
Do you use AI tools in your research?	Yes (124)	66%
	No (64)	34%

Table 5: Most used AI tools by research task

Research task	Tool	Frequency	Percentage
Searching for sources	Semantic Scholar	112	55%
	Google Scholar	54	27%
	Elicit	36	18%
Searching within texts	Perplexity	110	48%
	Scite	75	33%
	Emergent	43	19%
Academic writing and rephrasing	ChatGPT	96	54%

Table 5: Most used AI tools by research task *(continued)*

Research task	Tool	Frequency	Percentage
	DeepSeek	58	33%
	Wordtune	23	13%
Statistical analysis	Excel	123	67%
	IBM Watson	32	18%
	Julius	27	15%
Mind maps, diagrams, presentations	Gamma	112	53%
	Canva	76	36%
	PowerPoint	21	10%
Language proofreading	Grammarly	99	51%
	Hemingway	62	32%
	Moda OiO	34	17%
Machine translation	Google Translate	143	69%
	Reverso	42	20%
	DeepL	23	11%
PDF merging and formatting	I Love PDF	84	41%
	Smallpdf	76	37%
	PDFgo	43	21%
Reference management	Mendeley	62	43%
	Researcher	44	31%
	Zotero	37	26%
Publishing and journal selection	ResearchGate	88	46%
	Trinka Journal Finder	57	30%
	Springer Journal Suggester	48	25%

Table 6: Perceived quality of AI tools

Quality	Frequency	Percentage
Good	84	45%
Medium	92	49%
Poor	12	6%
Total	188	100%

Interpretation: About two-thirds of the faculty (66%) use AI tools in their research. The tools most used for each task were Semantic Scholar for finding sources (55%), Perplexity for searching texts (48%), ChatGPT for academic writing (54%), Excel for statistics (67%), Gamma for mind maps and presentations (53%), Grammarly for proofreading (51%), Google Translate for translation (69%) and Mendeley for reference management (43%). Nearly half of the respondents rated the tools as of medium quality, which suggests there is room for improvement.

Theme 4: Challenges, and benefits, of using AI tools

Table 7: Challenges in using AI tools in research

Challenge	Frequency	Percentage
Lack of expertise and skills	55	18%
Some tools are not free	53	17%
Reliability of results	48	16%
Choosing the most suitable tool	45	15%
Privacy and data security	41	13%
Intellectual property and academic integrity	34	11%
Language barriers	32	10%
Total	308	

Interpretation: The great majority of faculty (87%) reported difficulties when using AI tools.

The main obstacles were lack of skills, the cost of tools and doubts about the reliability of results, followed by difficulty in choosing a tool, privacy, intellectual property and language barriers. The findings point to a need for structured training, ethical guidelines and access to affordable AI solutions in Algerian academic research.

Opinions on endorsing AI tools in research were somewhat divided, with a slight lean in favor of using them. As for perceived usefulness, more than half of the participants judged it to be moderate. Most faculty members run into difficulties, the leading ones being lack of expertise and skills (18%) and the cost of certain tools (17%).

14. SUMMARY OF FINDINGS

The analysis leads to five main conclusions for the Algerian context:

5. **High awareness, real obstacles:** faculty members generally know about AI tools but meet substantial barriers when applying them effectively in research.
6. **Reliance on online resources:** AI knowledge comes mainly from websites and self-study, which shows how important digital-literacy training is in Algerian universities.
7. **Different tools for different tasks:** AI tools serve many research functions: finding sources, analyzing texts, and writing, analyzing data and translating.
8. **Moderate assessment:** respondents generally rated both the quality and the practical benefit of AI tools as medium, so improvement is possible.
9. **Technical, financial and ethical challenges:** The obstacles include insufficient training, limited access to tools, doubts about the reliability of outputs, privacy and ethical concerns, which are particularly pressing in Algerian universities.

15. RECOMMANDATIONS

10. **Build faculty skills.** Put in place a comprehensive strategy of AI training for Algerian faculty members, aligned with international standards. It would strengthen their competence, help them keep up with technology and raise the quality of research in Algerian universities.
11. **Encourage collaboration and curriculum alignment.** Strengthen cooperation and exchange between psychology departments in Algerian universities, their foreign counterparts and leading AI companies. Curricula should also be reviewed and updated to include specialized courses reflecting current AI technologies and their practical uses, in line with Algeria's national digital-transformation strategy.
12. **Invest in AI research.** Encourage Algerian researchers to carry out in-depth studies of AI applications and tools, opening new interdisciplinary areas. This investment would improve researchers' skills and keep them

abreast of developments in the field.

13. **Provide infrastructure and funding.** Guarantee financial support and technical resources in Algerian academic institutions to create a setting in which AI tools can be adopted. Adequate digital infrastructure would raise researchers' efficiency and improve the quality of output in psychology departments across Algeria.

REFERENCES

1. Belmir, S., & Daira, A. (2025). Algerian researchers' attitudes towards employing artificial intelligence applications in scientific research: A survey study on a sample of Algerian researchers. Atras, 6(1), 151-172.

2. Kinney, R., Anastasiades, C., Authur, R., et al. (2023). The Semantic Scholar Open Data Platform. arXiv: 2301.10140. https://doi.org/10.48550/arXiv.2301.10140

3. Long, D., & Magerko, B. (2020). What is AI literacy? Competencies and design considerations. Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems (CHI '20), Honolulu, HI, 25-30 April 2020.

4. Lounansa, S. (2024). Attitudes of Algerian researchers towards the use of artificial intelligence techniques in scientific research: A prospective field study [in Arabic]. Al-Risala Journal of Humanities Studies and Research, 9(3), 512-525. https://asjp.cerist.dz/en/article/254317

5. Malik, G., Tayal, D., & Vij, S. (2019). An analysis of the role of artificial intelligence in education and teaching. In Recent Findings in Intelligent Computing Techniques, 407-417. Springer.

6. Miao, F., & Holmes, W. (2023). Guidance for generative AI in education and research. Paris: UNESCO. https://unesdoc.

7. Othmane, M. (2024). Artificial intelligence in Algerian higher education: A critical examination of benefits and risks for students and teachers. Aleph, 11(4-2), 555-570.

8. Russell, S. J., & Norvig, P. (2021). Artificial Intelligence: A Modern Approach (4th ed.). Pearson Education.

9. Winkler, B., & Kiszl, P. (2021). Views of academic library directors on artificial intelligence: A representative survey in Hungary. New Review of Academic Librarianship, 1-17.

10. Zawacki-Richter, O., Marín, V. I., Bond, M., & Gouverneur, F. (2019). Systematic review of research on artificial intelligence applications in higher education - where are the educators? International Journal of Educational Technology in Higher Education, 16, Article 39.