

Teachers' Perspectives on AI Tools in Educational Research: A Case Study at the University of Constantine

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ABSTRACT:

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The widespread adoption of AI tools has transformed education and research, prompting important questions about their integration in academic settings. This study examines teachers' perceptions regarding the use of artificial intelligence tools in educational research. Therefore, a questionnaire has been administered to 21 teachers from the Department of Letters and English Language at the University of Constantine 1. Results indicate that teachers hold generally positive attitudes toward AI tools in academic contexts. The findings emphasize the importance of establishing clear regulations and policies for AI integration, while underscoring the need for further research to inform future academic applications of these technologies

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Introduction:

The emergence of artificial intelligence has transformed the world we live in many ways. Numerous areas of human life have been completely reshaped. New careers have emerged, while others have become obsolete or extinct. The field of academic research is no exception. The advent of AI, including large language models, has revolutionized research. This technology has provided us with numerous applications across various domains. However, many teachers today are complaining about the overuse and unethical application of AI in academic writing. Whether it is used for simple essays or more complex research papers, AI is becoming increasingly prevalent in academic work. This presents a clear threat to the integrity of universities and other academic institutions. Therefore, it is evident that research should investigate this phenomenon and develop training programs or guidelines to ensure AI is integrated safely into academia. The present study aims to explore teachers' perspectives on the use of AI tools in academic research.

1. Literature Review

1.1 Overview of Artificial Intelligence.

Artificial Intelligence is a term composed of two words. “Artificial” and “Intelligence. The term “Artificial” undoubtedly has to do with its nature of creation. AI is a result of human ingenuity rather than a consequence of natural or evolutionary occurrences. In a broad sense, AI can be defined as a man-made technology that is capable of reasoning, learning, retrieving, and utilizing information in various new situations. In other words, computer systems can be applied in a way that enables them to perform tasks typically requiring human intelligence properties, such as reasoning, learning, and problem-solving.

The applications of AI are broad and continue to expand as technology evolves. Holmes et al (2019) emphasize that AI tools can help learners and educators by providing them with valuable feedback and enabling data-driven decision-making. AI-driven platforms are also capable of analyzing students' performance and customizing the content to enhance and optimize learning outcomes (Zawacki-Richter et al., 2019).

While AI tools present many opportunities in various domains, scholars also caution about the risks and challenges involved in the implementation of such technology. As an example of that, Selwyn (2019) notes that the adoption of AI must be approached critically, with attention to

ethical concerns, bias in algorithms, and the potential for undermining teacher autonomy.

1.2 Artificial Intelligence and Research:

Artificial intelligence has the potential to revolutionize in a variety of ways the lives of human beings in any domain in which it is implemented. This has already been seen in engineering, robotics and several other fields and sciences. Various sectors have already adopted this technology because of its wide range of applications. Academic Research is no exception.

A number of studies have already shown that Artificial Intelligence has immense potential in enhancing the research process. Research conducted by Svab et al. (2023) concluded that AI makes scientific writing easier and less time-consuming, therefore leading to quality improvements. They further emphasize that AI tools are great for searching, analyzing, and writing scientific literature. Another study by Giglio and Costa (2023) entitled "*The use of artificial intelligence to improve the scientific writing of non-native English speakers*" reports that AI can significantly aid in improving the clarity, style and overall coherence of scientific writings of non-native English speakers. Additionally, Alshater (2022) investigated the role of advanced bots in research and suggested that ChatGPT or other related advanced chatbots have the potential to improve efficiency, accuracy, speed, consistency, and provide researchers with flexibility in terms of the type of research they could tackle.

Although AI has been proven by several studies to substantially enhance the process of research, many more studies expose the limitations of such technologies by pointing out their possible threats to academic integrity in terms of plagiarism, falsifications, bias, or even inaccuracies. These studies also point out risks of overreliance and poor reliability of the research if human oversight is undermined. Several studies illustrate that:

Yeadon et al. (2022) report that natural language processing AI poses a direct threat to academic integrity because it undermines the reliability of essays as a method of assessment due to its ability to produce human-like content and bypass plagiarism detectors. Another study conducted by Majovský et al. (2023) focuses on AI's potential to create fraudulent scientific papers and raises concerns about academic integrity by concluding that AI can produce "convincing" fraudulent articles and calls for the implementation of better detection methods to prevent misuse of this technology in research. Furthermore, Ogurlu and Mossholder (2023) report a negative correlation between excessive AI tool use and critical thinking abilities, demonstrating that overreliance on such tools

hampers users' critical thinking skills. Lastly, Ajiye and Omokhabi (2025) highlight in their findings that overreliance on AI tools for content creation may blur the distinction between AI-generated and human-generated content. They also note that this extensive use could prevent authors from developing their own "distinct voice and perspective."

The majority of studies conducted on the use of AI in academic research not only raise awareness about the possible threats related to the misuse of this technology but also highlight the necessity of developing adequate policies and regulations that dictate and limit their use by clearly defining what is "ethical" and what is "unethical" regarding AI usage. An example of that is shown in the study of Ajiye, O. T., & Omokhabi, A. A. (2025), where they emphasize that universities and other academic institutions must establish policies that outline the ethical application of AI tools for both students and researchers.

2. Overview of ChatGPT

2.1 Definition of ChatGPT

ChatGPT, short for Chat Generative Pre-Trained Transformer, is a generative artificial intelligence (AI) system based on the architecture of large language models (LLMs) and developed by a company called OpenAI. This tool provides its users with multiple functions and is the integration of multiple technologies such as deep learning, instruction fine-tuning, reinforcement learning, multi-task learning, and unsupervised learning (Wu et al., 2023). Through the interpretation of inputs that are called prompts, ChatGPT can provide contextually dependent responses, summarize texts, analyze data, translate all sorts of texts, engage in conversations, or even generate academic or creative content. These applications have allowed it to be integrated in all sorts of important domains that include education, engineering, research, healthcare and many more.

2.2 Advantages and Disadvantages of ChatGPT:

2.2.1 The Advantages of ChatGPT

- **Efficiency and Productivity:** Multiple studies have shown that ChatGPT speeds up the writing process by automating repetitive tasks. This allows users to focus on higher-order thinking. Benichou (2023) discovered that medical authors could produce higher volumes of article text without sacrificing surface quality, while Lee et al. (2021) found that researchers using ChatGPT drafted manuscripts more quickly, with initial sections completed in a fraction of the usual time. This means that ChatGPT allows users to focus on critical analysis and argument development by lowering the cognitive load (Lee et al., 2021; Benichou, 2023).

• **Writing Support and Fluency:** ChatGPT has proven to be extremely helpful for non-native English speakers. It has been shown that the tool allows them to produce more grammatically correct and stylistically coherent content. Vicente Yagüe Jara et al. (2023) showed that AI-generated drafts scored higher than student-written texts when it comes to fluency, flexibility, and originality. This indicates that ChatGPT can act as a writing assistant during the early stages of drafting.

• **Idea Generation and Content Synthesis:** Many studies demonstrate ChatGPT's ability to summarize and brainstorm. According to Su et al. (2023), students in writing classes used ChatGPT to generate essay outlines and first drafts, which they improved. This enhanced their comprehension of the subject matter and the coherence of their arguments. As a result, ChatGPT serves as a drafter that encourages critical thinking (Muhammad Osama & Afridi, 2023; Su et al., 2023).

2.2.2 The Disadvantages of ChatGPT

• **Factual Inaccuracy and “Hallucination”:** The tendency of ChatGPT to produce believable but inaccurate information is an observation, which occurred in many studies.

• **Ethical and Integrity Risks:** Multiple studies emphasize the dangers that ChatGPT poses to academic integrity. Ali and Singh (2023) emphasized the lack of rules regarding the use of AI in writing scientific abstracts and highlighted the need for detection tools.

• **Overreliance and Skill Erosion:** Research indicates that learners' own writing and critical-thinking skills may be weakened by an uncritical reliance on ChatGPT. According to Basic et al. (2023), students' essay grades did not improve despite ChatGPT 3.5's speed and fluency, and a greater number of their submissions were marked as "unauthentic."

3. Methodology

3.1. Population

The present study was conducted at the Department of Letters and the English language at the University of Constantine 1, Frères Mentouri, Algeria. In order to test the validity of the present, a questionnaire of a mix of quantitative and qualitative questions that delve into teachers' perceptions of the use of AI in academic research has been administered to 21 teachers.

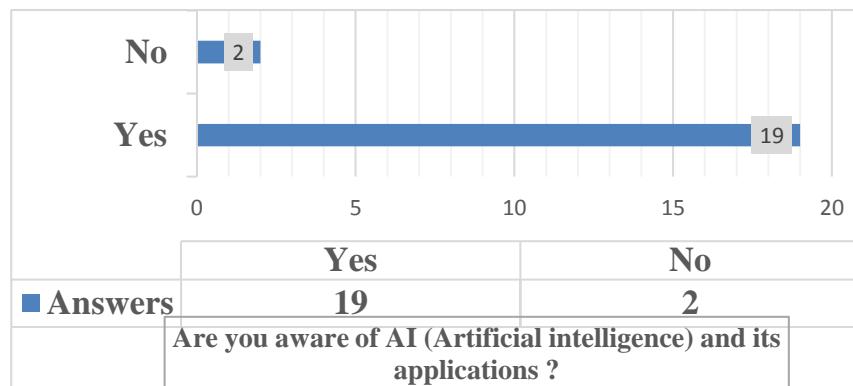
3.2. Tool of Investigation

An online questionnaire was administered through *Google Forms* to 21 teachers at the Department of English, University of Constantine 1. The

questionnaire encompasses five (5) sections. The first section collects information about the teachers' academic ranks and years of experience. The second section, entitled "Awareness and Usage of AI," checks their familiarity with AI tools. The third section, entitled "Perceptions of AI in Academic Research," analyses their views on the use and implementation of AI in academic research. The fourth section, entitled "The Role of Guidelines in AI Usage," explores the idea of guidelines implementation for the use of AI. Finally, the fifth section entitled "Students' Use of AI Tools in Academic Research" examines the teachers' perceptions about students' actual use of AI in academic research.

4. Results and Discussion

Figure 1: Teachers' awareness of AI and its applications



1/ The results show that most teachers in our sample are familiar with artificial intelligence and its potential uses. 90% (19 out of 21) of the teachers answered "yes," while only 10% (2 out of 21) said "No".

Table 1: Frequency of AI Use among Teachers

Options	Number of responses	Percentages
Always	2	9.5%
Often	3	14.3%
Sometimes	9	42.9%
Rarely	6	28.6%
Never	1	4.8%
Total	21	100%

2/ As indicated in the table above, the data shows that out of the 21 participants, only **one teacher** claims to have never used AI in research. All the remaining participants seem to rely on AI in their academic research with varying frequency. The data shows that **28.6% (6 out of 21)** of the participants **rarely** use AI in their research. The majority of the teachers (**42.9%**) claim that they **sometimes** use AI in their research. **3 out of 21 (14.3%)** claim that they **often**

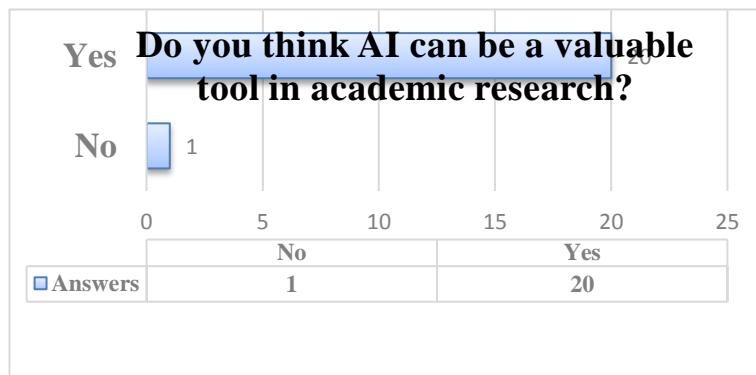
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resort to AI in their research. Lastly, **2 out of 21 (9.5%)** participants claim that they **always** utilize AI in their academic research. The results show that the use of AI in academic research is varied among the teachers of the Department of Letters and English Language at the University of Constantine 1.

Table 2: Teachers' AI use in Academic Research

AI tool	Frequency	Percentage of Total Mentions (out of 41)
ChatGPT	15	36.6%
Gemini	3	7.3%
Claude	2	4.9%
Perplexity	2	4.9%
Turnitin	2	4.9%
Quillbot	2	4.9%
Elicit	2	4.9%
AI translation tools	1	2.4%
Deepseek	1	2.4%
Qwen	1	2.4%
Midjourney	1	2.4%
Gamma	1	2.4%
Grammarly	1	2.4%
Microsoft Copilot	1	2.4%
Connected Papers	1	2.4%
Research Rabbit	1	2.4%
SciSpace	1	2.4%
Jenni AI	1	2.4%
Question Well	1	2.4%
Ideogram	1	2.4%

3/ The table above shows that teachers at the Department of Letters and English Language at the University of Constantine 1 utilize a wide range of different types of AI tools covering all kinds of functionalities. Most participants answered that they have utilized more than one AI tool in their academic research. ChatGPT stands as the most prominent AI tools used in academic research, with the highest percentage of **36.6% (15 out of 41 Mentions)**. Other AI tools like Gemini, Perplexity, or Turnitin were mentioned, nevertheless with much fewer mentions (Two or three at most). The data suggests that ChatGPT retains the first place in terms of popularity and use among teachers at the Department of Letters and English Language at the University of Constantine 1.

Figure 2: Teachers' views about the value of AI in academic research

4/ This question investigates teachers' perceptions about the value of AI in Academic Research. Out of the 21 participants in this survey, **95.2% (20 teachers)** believe that AI can be a valuable tool in academic research. While only **4.8% (1 teacher)** do not share this view. This suggests that the vast majority of teachers view AI as a valuable asset with promising benefits to the realm of academic research.

5/ The current question investigates the perceptions of teachers towards the potential benefits of AI use in academic research. The researcher aims to understand if AI belongs to the realm of academic research as viewed by teachers. Additionally, this question is important because teachers' perceptions directly dictate the acceptance, integration, or resistance towards the adoption of AI in academia. The respondents' answers were as follows:

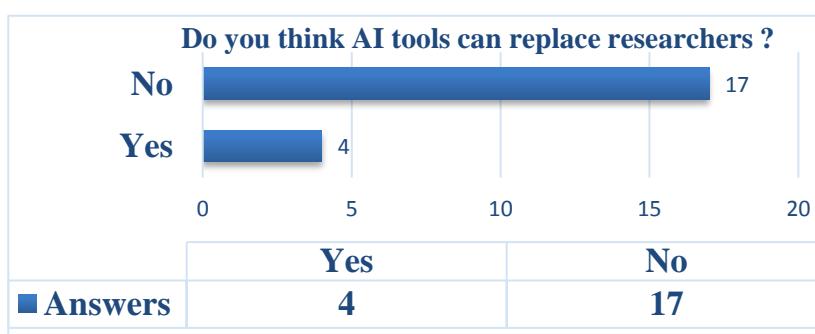
- **Time Efficiency:** Many participants noted that AI could enhance the research process. They claim AI can save time and reduce research costs by including faster and more economical means of data processing.
- **Data Processing and Analysis:** Some participants noted that AI could handle large amounts of data, transcriptions, translations, or even perform statistical calculations.
- **Research Assistance and Guidance:** AI is seen by some participants as being an extremely helpful assistant who helps with brainstorming, outlining, and therefore making the research process easier and more manageable.
- **Accuracy and Quality Control:** Participants claim that AI not only boosts efficiency but also helps in maintaining high levels of accuracy and quality by means of error checking, proofreading, and plagiarism detection.

6/ This question delves into the diverse challenges associated with the use of AI in academic research. The aim is to highlight some of the reasons that some teachers are still reluctant when it comes to the use of AI in academic research.

The data collected from this question was also analysed through the thematic analysis method:

- **Academic Integrity:** A significant number of participants talked about AI's potential to compromise academic integrity by facilitating plagiarism and falsification.
- **Overreliance and Dependency:** Many participants showed concerns about AI's potential to make users overly dependent on artificial intelligence that may threaten creativity and critical thinking among researchers.
- **Quality and Reliability:** Participants also showed concerns about AI's potential to generate misleading and inaccurate conclusions, which may negatively affect the quality of their research.
- **Erosion of Human Skills:** The deterioration of human skills was also a subject of concern for some participants. Participants claimed that the extensive use of AI might lead researchers to diminish their critical thinking and creativity.

Figure 3: Beliefs about AI replacing researchers



7/ The purpose of this question is to measure participants' beliefs about AI's potential to replace human researchers. As presented in the bar chart above, results show that **17 out of 21 (81%)** of the participants believe that AI has no potential in replacing human researchers. Only **four out of 21 (19%)** of the participants believe that it can potentially replace human researchers.

8/ The question above addresses the ethical implications of the use of AI in academic research. Additionally, this question highlights the possible ethical implications that researchers using AI should be aware of. It is also relevant in the sense that it affects the potential adoption of AI tools in the academic realm by shaping policies and guidelines that are incorporated for responsible use. The participants' responses were as follows:

- **Academic Integrity and Reliability:** Several participants showed some concerns related to plagiarism (whether it is being accused of plagiarism or

deliberate plagiarism) and to the authenticity of the data. They believe that AI may pose a threat to Academic Honesty.

• **Overreliance on AI:** Several teachers answered that a potential ethical consideration for the use of AI in academic research is the issue of dependency. They see that the overreliance on AI tools contributes to the erosion of essential skills required for research.

• **Guidelines and Regulations:** Some participants pointed out the need for strict guidelines and regulations concerning the use of AI in academic research. According to the participants, these regulations and guidelines should maintain an ethical use, prevent unethical use, and moderate the use of such tools.

• **Adaptive Challenges:** One of the participants showed some concerns regarding the difficulty of adapting to such a technology.

9/ The subsequent question seeks to figure out the type of guidelines teachers perceive as being most useful and effective. Their answers were as follows:

• **Acknowledgment and Citation of AI:** As AI becomes more involved in the research process; some of the participants highlight the importance of proper acknowledgement and citation of any AI use in the research process.

• **Define and Enforce Ethical Use of AI:** Participants also showed concern when it comes to clearly defining the ethics surrounding the use of AI in academic research and call for the establishment of clear rules, policies and penalties in case those rules are not respected.

• **Education and awareness:** This theme emphasizes the importance of raising awareness and providing support to teachers and students who want to integrate AI in their work.

• **Clarifying the role of AI in the research process:** This theme focuses on the importance of clearly defining where AI should and should not be used in the research process. Additionally, it highlights the importance of human oversight, critical thinking, and human evaluation of any AI output.

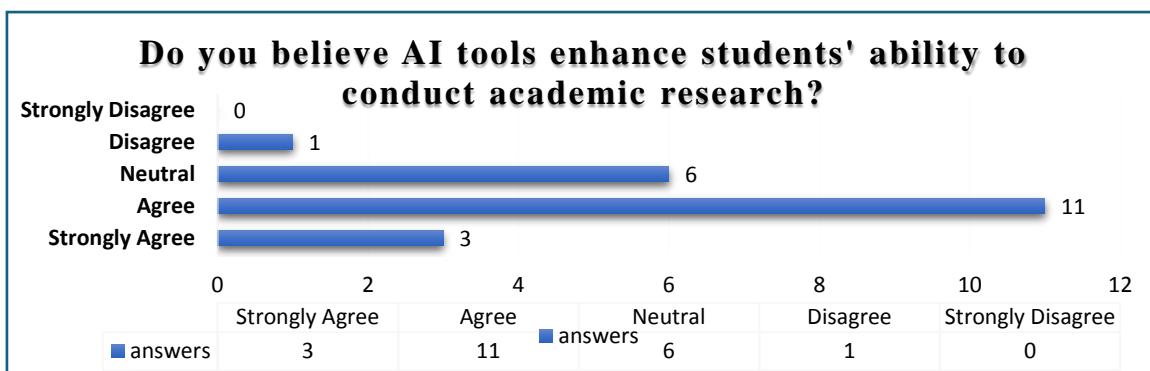
2.1.1 Section 5: Students' Use of AI Tools in Academic Research:

Question 10: Do you believe AI tools enhance students' ability to conduct academic research?

Strongly Disagree Disagree Neutral Agree Strongly Agree

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Figure 4: AI's Potential to Enhance Students' Ability to Conduct Research

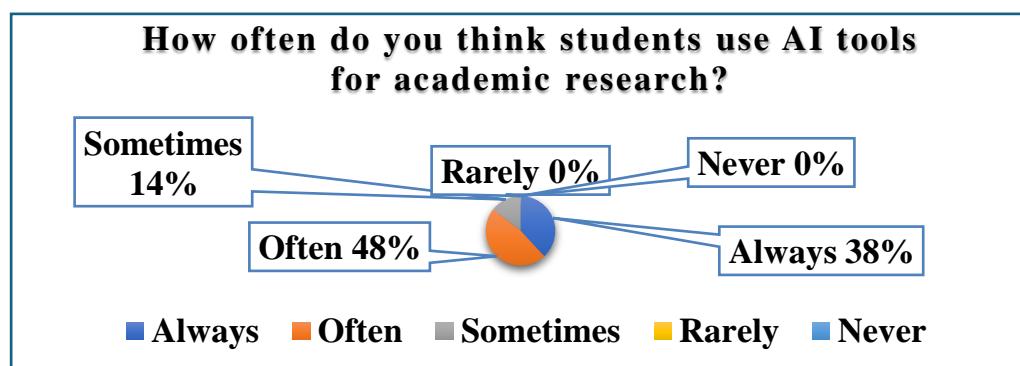


10/ From the chart above, we can see that around half of the participants, 11 out of 21 (52.38%), agreed with the idea that AI is a useful tool that could enhance students' ability to conduct research. While 3 out of 21 (14.29%) strongly agree with this proposition, only one participant disagrees, and 6 out of 21 (28.57%) remain neutral.

Question 11: How often do you think students use AI tools for academic research?

Always Often Sometimes Rarely Never

Figure 5: Teachers' Views on the Frequency of AI Use by Students in Academic Research

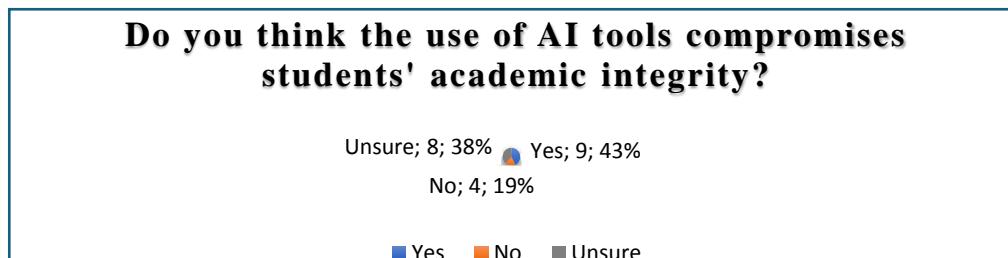


11/ From the pie chart above, we can see that most participants, **10 out of 21 (47.62%)**, believe that AI is **often** used by students in the process of research. Furthermore, **8 out of 21 (38.10%)** participants believe that students **always** do so. The remaining **three participants (14.29%)** believe that students only **sometimes** resort to AI in their research. Finally, **none** of the participants believes that students in research rarely or never use AI.

Question 12: Do you think the use of AI tools compromises students' academic integrity?

Yes No Unsure

Figure 2: Teachers' Perceptions of the Threat AI Poses to Students' Academic Integrity

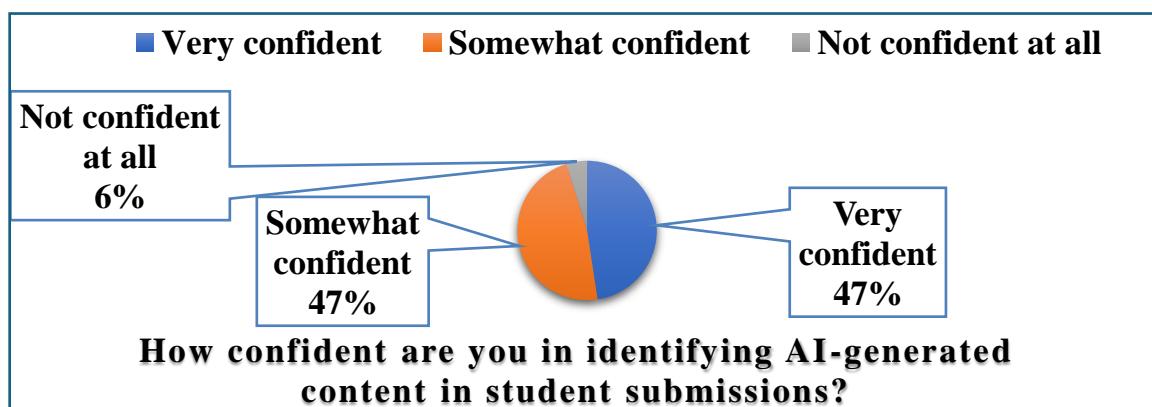


12/ The pie chart above shows that 9 out of 21 (81%) participants believe that AI tools have the potential to compromise students' academic integrity. While 8 out of 21 (38%) participants are unsure about it, 4 out of 21 (19%) participants believe that AI tools pose no threat to students' academic integrity.

Question 13: How confident are you in identifying AI-generated content in student submissions?

Very Confident Somewhat Confident Not confident at all

Figure 7: Teachers' Ability to Identify AI-Generated Content

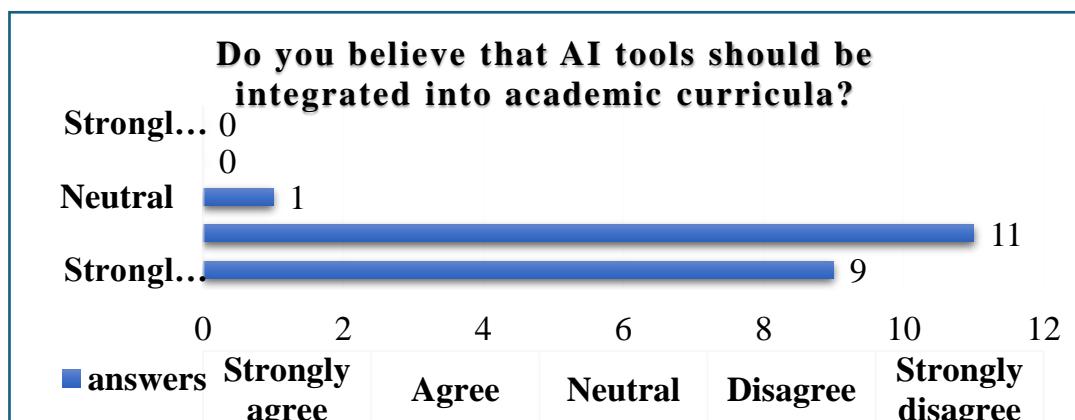


13/ The chart illustrates teachers' perceptions of their ability to identify AI-generated content in students' submissions. The pie chart shows that participants are divided into two equal teams. The first, **10 out of 21 (47%)** participants believe that they are **very confident** in identifying AI-generated content in students' submissions. The second, also **10 out of 21 (47%)** participants reported being **somewhat optimistic** in identifying AI content. Only **one participant** claims to be completely unconfident in identifying AI-generated content.

Question 14: Do you believe that AI tools should be integrated into academic curricula?

Strongly Disagree Disagree Neutral Agree Strongly Agree

Figure 8: The Integration of AI Tools into Academic Curricula



14/ The bar chart illustrates teachers' perceptions about the integration of AI into academic curricula. The chart shows that most participants entertain this idea positively. **Nine out of 21 (42.86%)** participants **strongly agree** with this proposition. While **11 out of 21 (52.38%)** participants **agree** with this idea, only **one** participant remains neutral.

5. Discussion of the Findings

The teachers' questionnaire provided valuable insights into their perceptions, fears, and expectations towards the use of artificial intelligence in academic research. Based on the answers of 21 participants from the University of Constantine 1, Frères Mentouri, the data reveal an overall positive view toward the use of AI in academic research. It also highlights some of their concerns and the need to provide a framework that regulates and oversees the integration of this technology in academic contexts. The results obtained from this questionnaire also demonstrate that most teachers are not only aware of AI tools but also use a number of them to varying degrees. This proves that AI tools are gaining more and more in prominence in academic contexts. Additionally, it is important to mention that ChatGPT ranks as the most widely used AI tool among teachers at the University of Constantine 1.

Regarding the value of AI in academic research, nearly all participants agreed that AI has the potential to support researchers. The participants cited benefits such as time efficiency, brainstorming, and proofreading, among others. However, they also expressed concerns about issues related to academic integrity, overreliance, and the quality of AI outputs. These concerns highlight that while most teachers see AI as a valuable tool that can greatly improve the research process, they also emphasize that it requires human supervision and oversight. This was confirmed by 81% of teachers who believe that AI cannot replace human researchers.

Concerning the role of guidelines, all participants supported the idea of the implementation of clear guidelines that govern the use of this technology. The guidelines, as perceived by the participants, should include an acknowledgement of AI tools in research with a clarification of AI tools' role in the research process, strict regulations that punish the misuse of this technology, and training initiatives for both students and teachers.

Finally, concerning students, while 28, 6% of the participants remain neutral, the majority believe in AI's potential to enhance students' ability to conduct research. Nevertheless, some of them remain sceptical and show concerns about AI's potential to threaten students' academic integrity.

As a last point to be mentioned, 95% of the participants supported the integration of AI in academic curricula. This supports the idea that the appropriate path forward should be a guided integration of AI in academic contexts backed by strict and research-based regulations and policies.

Conclusion

The study set out to explore the teachers' perceptions regarding the use and integration of AI tools in academic research. The results of the qualitative data showed that most teachers who participated in this study held overall positive attitudes toward AI tools in the context of research. They also manifested their concerns regarding ethics, integrity, and the need for clear guidelines and regulations. In light of these results, this study supports the idea that the effectiveness of such tools depends not only on the prompts with which they are used but also on other factors, which may include context, cognitive load, personal knowledge, iterative skills, and many more.

Finally, this research contributes to the body of studies that tackle AI in educational contexts. It highlights the need for continued research and questioning, which may involve other variables that may influence the quality of AI outputs in academic contexts. Additionally, the findings also emphasize the need for the development of policies and regulations that ensure that AI is used ethically and effectively in research.

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