

Research Paper

Exploring the ethical awareness of using artificial intelligence in Algerian tertiary education: Case of undergraduate and graduate EFL students at Souk-Ahras University

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Abstract

Ethical awareness is a pivotal component of English as a Foreign Language (EFL) students' identity in that it allows them to scrutinize their approach to learning which ensures their autonomy. Therefore, this study explores the ethical awareness of EFL students at Souk-Ahras University, Algeria. This study focuses on the use of Artificial Intelligence by students for their learning. It investigates their varying perceptions on and reactions towards AI for study and whether those views fit into the universal ethical code of conduct. This study employed a quantitative research approach with a descriptive research design. The sample studied consisted of 62 EFL students, selected through a random sampling technique. The collection of relevant data was done through a comprehensive survey. Data analysis was done using statistical analysis. The findings showed that students utilize AI tools for multiple learning purposes while being cognizant of its ethical drawbacks. However, students expressed a shallow approach to ethical reflection and did not rely on an authentic ethical framework upon which their decisions should be made. The study suggests that the development and employment of such a framework should start with teachers, by not merely disseminating charters but also delivering ethical scrutiny through their teaching and counselling.

Keywords: ethics; artificial intelligence; second language learning; ethical instruction; student attitudes

Introduction

All convenient actions must follow a set of normative principles that indicate their appropriateness for a defined situation. Technically, this fact necessitates a set of guidelines on which rational human beings translate and reflect on their endeavours by implicitly following this latter. Anthropologically, it is often the case since antiquity that morality controls and shapes the human conduct, mitigating its potential harms for the benefit of the whole group. Therefore, it is evident why philosophers have been wrestling with the notion of ethics, and leaving its judgment up to the individual whenever they decide whether an action is morally good or bad, i.e., right and wrong. In definition, ethics can refer to any system or theory of moral rights and principles (Singer, 2024), a baseline upon which decisions are found.

Despite being used interchangeably by modern scholars, since they both deal with addressing the difference between “right” and “wrong”, the aforementioned terms signify two different connotations. The former generally refers to something that is personal and normative, whereas the latter is the common standard for “good and bad” which is determined by a community (Grannan, 2023). While considering the use of both terms in previous discourse, it is apparent that ethics serve as a “code” of conduct governing certain practices and organizations alike, e.g. teaching and learning as well as higher education institutions (HEIs). By effect, the ethical code is shared and also specific for each stakeholder in an interrelated function. Each member has his/her own rights and obligations that are consistent within the whole community.

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The philosophy of education concerns itself with issues relevant to both teachers and learners in terms of their roles inside or outside the classroom. From Socrates to modern times, the Philosophy of Education has been a debatable area in the Western philosophical tradition. As noted by Siegel et al. (2018), the idea that education should, to the greatest extent feasible, cultivate in all pupils the desire to seek reasons and the capacity to evaluate them persuasively, as well as the competence to follow their evaluations in issues of belief, action, and judgment, has long been influenced by Socrates and his descendants. The majority of those historical leaders have adopted the belief that education is fundamentally about promoting reason or rationality, but with differing expressions and qualifications. This tradition continues with contemporary educational philosophers as well (Siegel 1988, 1997, 2007, 2017). The philosophy of education often contributes to the educational theory by approaching educational issues through the vantage-point of other philosophical sub-disciplines (Curren & Randall, 1998). This kind of philosophical analysis results in formulating educational aims influenced by other philosophical sub-disciplines, including ethics. Nowadays, objects of the philosophy of ethics has become educational ends in themselves, thus the importance of achieving these ends follows an ethical discussion (Curren & Randall, 1998).

As an example on professional ethics, the Algerian University Charter of Deontology and Ethics (AUCDE) (2023 version) clearly states the basic principles of ethics, deontological rules for all stakeholders (Professor-Researcher, administrative staff, technicians, service officers, and students), penalties, and two commitment samples for both: staff employees and students. An interesting part of the AUCDE lies in Digital ethics, which is discussed in detail and further elaborated in this study. The basic charges of tertiary education activity, that is teaching, scientific research and social service as mentioned in the AUCDE were “thoroughly explained in the UNESCO’s universal declaration issued on October, 09th 1998 and validated in 2009”. Similarly, the OAJ (2013) clearly mentions that the ethical principles set out are influenced by the United Nations’ declaration of Human Rights. It is often the case that ethics are influenced by the context on which they are founded and applied upon. This makes it necessary to contextually explore the status quo of ethics in tertiary education and their adoption and awareness in a vivid environment, and the Algerian universities offer the perfect ground.

Ethical teaching and learning are both grounded in the ethical theory, thus, an increased awareness of ethical issues that arise inside the EFL classroom following traditional views in ethical philosophy contributes to the philosophy of education by processing ethical concerns peculiar to teaching and learning through the objects provided by ethical philosophy. Despite the absence of an agreement about what constitutes an ethically sound approach to teaching and learning, the reflection that takes place within the endeavours of teachers and learners helps to provide a solid ground for developing a framework for mitigating these ethical issues. Furthermore, EFL students’ ethical awareness continues to develop beyond core EFL courses and finds its feet in research work. According to Löfström (2012), the challenging ethical issues for students in a study that he conducted were “participant withdrawal, the debriefing of research participants, the dissemination of the findings, and giving credit to co-contributors”. In fact, gauging students’ ethical awareness helps them to address common ethical issues they face in research, which will help them to mitigate the potential harms of these issues that might arise in their research work.

In this vein, this research ought to tackle modern issues regarding the implementation of artificial intelligence (AI) in higher education. Whenever AI is integrated within education as a tool for achieving field-specific objectives, it takes as a reference “Artificial Intelligence in Education” simply abbreviated as AIED. AIED research has been focusing on the ethical concerns and barriers (Holmes & Porayska-Pomsta, 2022; Shen et al., 2021), and a pedagogically aware use of artificial intelligence technologies cannot occur in isolation from an ethical standpoint. Undergoing this area of research, which is relatively new and ever evolving since the formal release of large language models led by Open AI’s ChatGPT is a crucial test for EFL students’ ethical awareness regarding the integration of novel technologies into their learning environment. It is safe to say, that AI is taking over, and it is now a relevant phenomenon in the education sector. AI is a multidisciplinary field that has gained significant attention in educational research (Williams et al., 2019; Lin et al., 2020; Nan, 2020; Ge et al., 2021; Kewalramani et al., 2021), and it holds enormous implications for education, including teaching, learning, and assessment (Knapp, 2006; Cordeschi, 2007). For illustration, Chan and Zary (2019) have expressed how integrating these tools can boost learners' engagement and motivation, provide tailored learning experiences, and facilitate feedback. According to Chiu (2024), students are looking forward towards the development of policies regarding AI implementation in Tertiary Education, and this comes as a result of their excitement concerning the development of skills relevant to future job opportunities.

However, Cheng et al. (2020) hold that by using AI solutions in tertiary education students will tend to underestimate tasks allotted to them, and will fail to explain AI's produced works which they claim as their own. There is always a risk of shallow learning when using these technologies.

Ergo, a comprehensive set of research questions have been formulated. From the discussion above, one can disseminate the following research questions:

RQ1: How do EFL students perceive the utilization of AI tools for learning purposes?

RQ2: How do EFL students react to the ethical conundra presented by the utilization of AI tools in Higher Education Institutions?

In order to answer these research questions, the following hypotheses were suggested:

H1: EFL students generally have positive attitudes towards the utilization of AI tools in their learning

H2: EFL students hold a shallow awareness of the ethical implications behind using AI tools in tertiary education

Research design and Methods

This study has employed a descriptive research design using quantitative research methodology to address for its research questions. The method used was an online survey using a questionnaire that was emailed to the EFL learners at Souk-Ahras University, Algeria. The questionnaires that were distributed were based on previous research on ethical issues concerning Artificial Intelligence (AI) utilization in tertiary education, namely for EFL learners.

This questionnaire has comprised 39 questions across three sections using a mix of multiple choice, close-ended and Likert scale question types. The questions were primarily formulated based on previous in the literature reviewed in tandem with the research questions introduced above, with the general purpose of aligning the inquiry this paper tackles in tandem with the research hypotheses. Each question was interpreted in a manner that is relevant to both research questions and hypotheses. The high number of questions for students reflects the broader range of existing studies addressing student perceptions of AI usage and its ethics. An information consent form was attached at the beginning of the questionnaire as an initial section to allow participants to check the information processing procedure and have the chance to decide on whether they agree on the processing of their data for research purposes. Answering this consent form was mandatory for completing the questionnaire, thus, only those who agreed on the processing of their data were able to answer the questions involved in the questionnaire. There were voluntary participation and anonymity of responses. The following sections were covered in the questionnaire: General information and overview, Personal Usage of Artificial Intelligence, and Ethical Awareness of Using Artificial Intelligence (AI).

Random sampling was used as a part of probability sampling in which the researcher randomly chooses a random set of representatives referred to as a sample from a particular population. As a result, 62 individuals were recruited to the survey through the most convenient online channels (Facebook Messenger, Instagram, and Gmail). The population consists of all EFL students at the English department of Souk-Ahras University which are 621 students distributed through five academic levels: undergraduate students: Licence 1 (L1), Second Year Licence (L2), Third Year Licence (L3), and Graduate students: First Year Master's (M1), Second Year Master's (M2). It should be noted that Undergraduates are concerned with studying the English Language, while Graduate students are majoring in Didactics of Foreign Languages. Quantitative data from the multiple choice, close-ended and Likert scale questions were analyzed using descriptive statistics. The results will be analyzed and presented in a structured format, complemented by figures for illustration.

Limitation of the Study

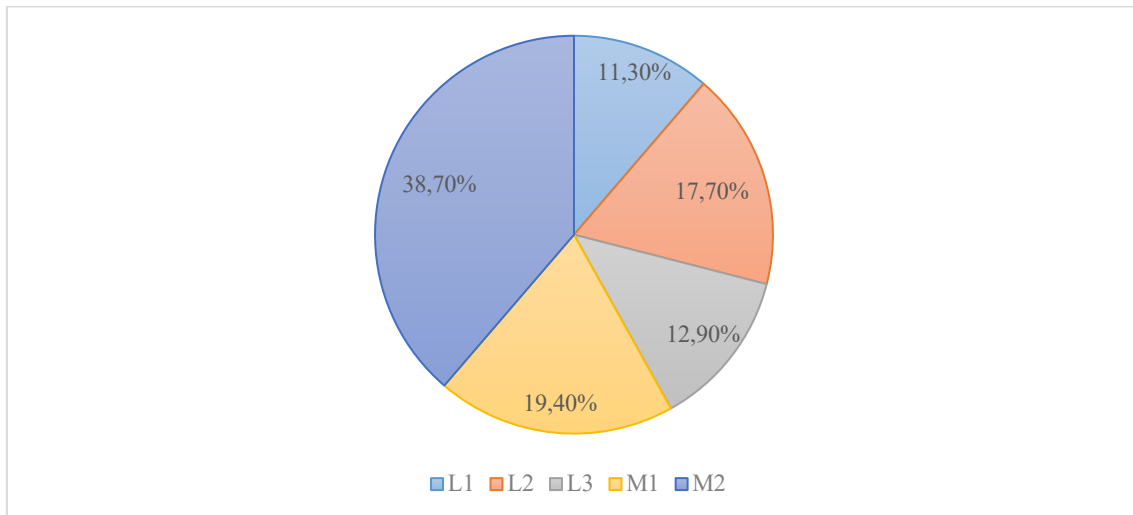
As it can be noted, this study is limited by the small number of participants involved in the research. Regardless of the efforts taken with disseminating the questionnaire to the highest possible number of EFL learners, response rate was weak. This might introduce a new variable for future research where researchers can study the underlying reasons that are linked to students' neglect of answering surveys. It is hypothesized that this can be due to the sensitivity of this topic.

Results

Participant Demographics

The sample comprises 62 participants (N=62) from the University of Souk-Ahras, Algeria, Department of English. Most were female (77.4%, n=48), and males accounted for 22.6% (n=14). Participants were distributed across various study levels, i.e., undergraduate (L1, L2, L3) and master's (M1, M2), as shown in Figure 1. The age ranged from 19 to 44 years (Mean = 22.32, SD = 4.32, N=62). Most of the students claimed to have heard of AI and used it at various frequencies daily, and many students already used it in studying EFL.

Figure 1. Students' Academic Level

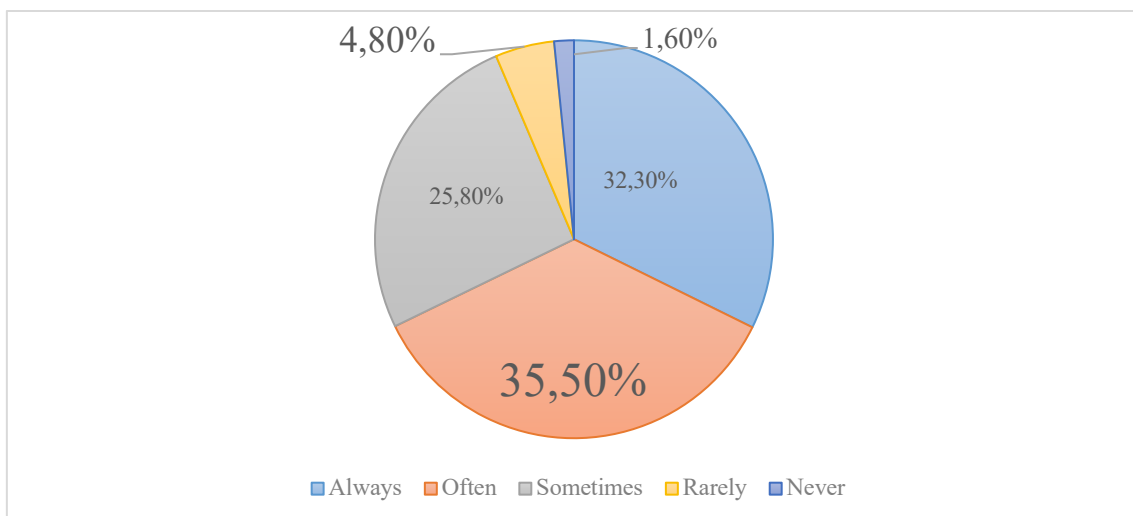


(Source: Online Survey, 2025)

Personal Use of Artificial Intelligence

As shown in Figure 2., the vast majority of students have confirmed their use of Artificial Intelligence with 61 students choosing "yes", while only one student has opted for no, as shown in Figure 2.(a). Students have shown that they use AI in their daily lives (Mean = 3.91, SD = 0.96, N=62). This implies that AI utilization is a familiar practice among EFL students. Exactly, 32.3% used AI "always," 35.5% "often," 25.8% "sometimes," 4.8% "rarely," and 1.6% "never." Sixty students (60, or 96.8%) testified to using AI specifically for learning purposes, as shown in Figure 2. (b).

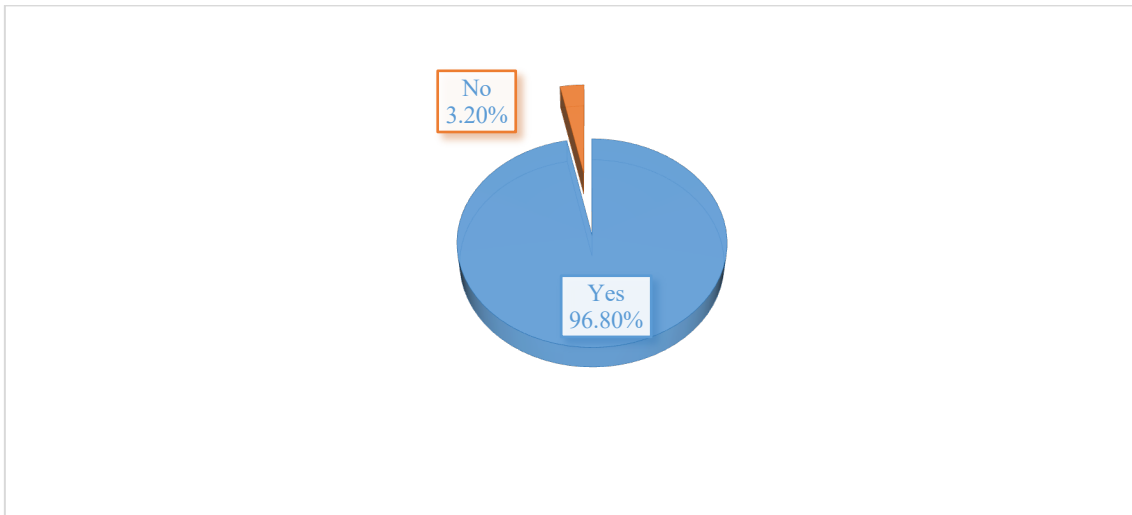
Figure 2.a. Students' Usage Frequency of Artificial Intelligence



(Source: Online Survey, 2025)

Students' usage of artificial intelligence in their daily lives has involved learning on a great level. The majority of students have indicated this fact, and which resulted in greater response rate regarding specific AI tools in addition to vivid responses in terms of ethical scrutiny and reflection on what these technologies can offer. The figure 2.b. below illustrates those who use AI for learning purposes and those who don't, showing a drastic difference between the two. This can give important insight into the acceptance of technologies that EFL students hold towards integrating such technologies for learning making it an important area for academic discussion and development.

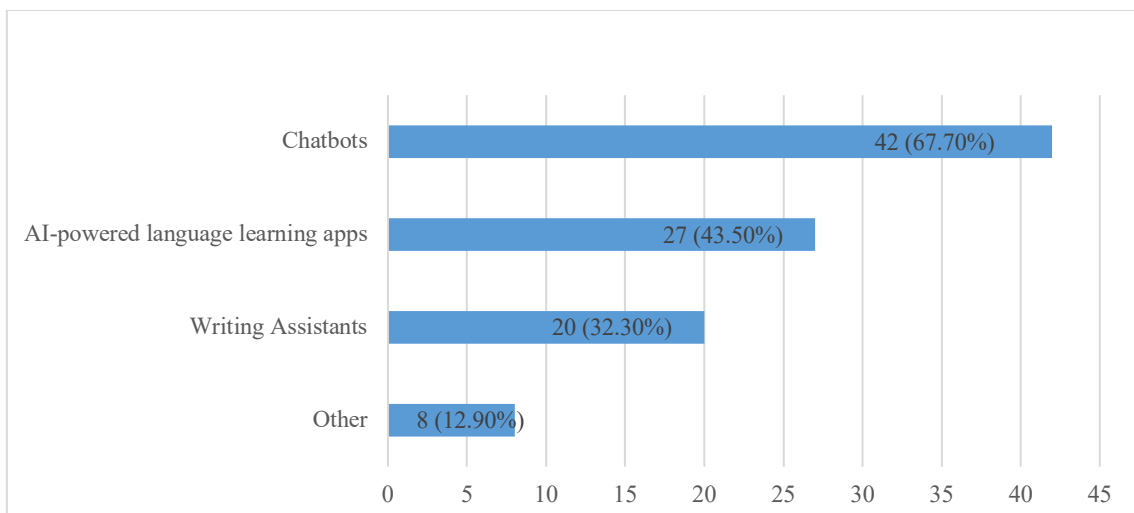
Figure 2.b. Students' Usage of AI for Learning Purposes



(Source: Online Survey, 2025)

Multiple responses were permitted to the question regarding the types of AI tools utilized. Most often applied were chatbots (67.7%, n=42), followed by AI-powered Language Learning Apps (43.5%, n=27) and writing assistants (32.3%, n=20), as shown in Figure 2. It is notable that the increase in interest towards the utilization of AI and specifically Chatbots is attributed to the public release of ChatGPT 3.5, which was followed by an increasing attention towards the benefits of these tools and the possibility of personal usage. Other softwares were mentioned by 12.9% (n=8). Examples provided are: ChatGPT, DeepAI, Microsoft Co-pilot, Gamma, GoSlides, Aithor, AI PPT Maker, CloudAI, Visual Minds, Character.ai, Quillbot, Grammarly, AI detectors, DeepSeek, OpenAI models, Claude 3.7, Ryne.ai, Perplexity, CanvaAI, Google Scholar (Note: Technically not AI itself, but uses AI), Duolingo, Grok, Replit, Copy.ai, Reverse Context, Bing AI Image Generator, and Meta AI.

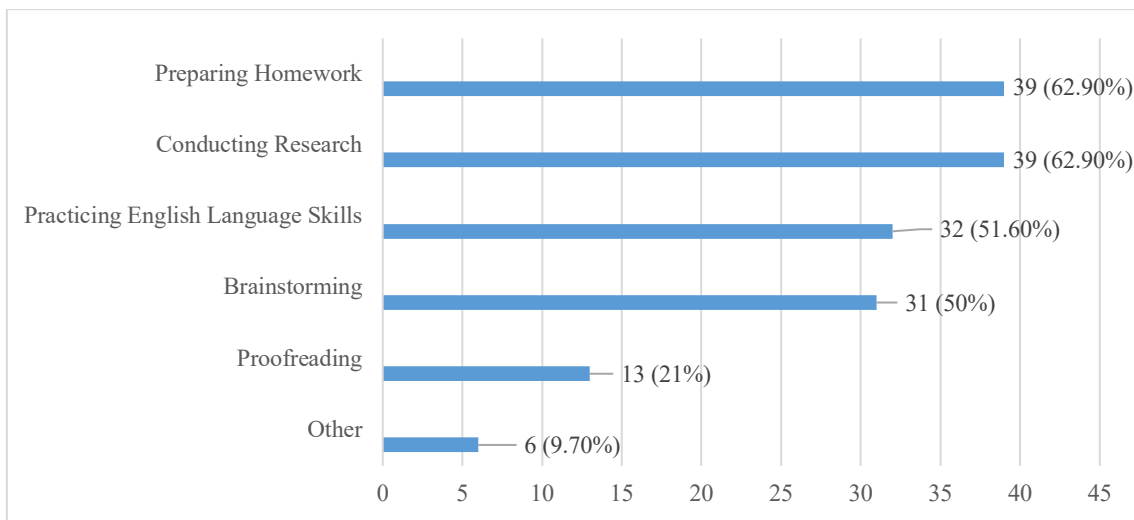
Figure 3. Type of AI tools used by Students



(Source: Online Survey, 2025)

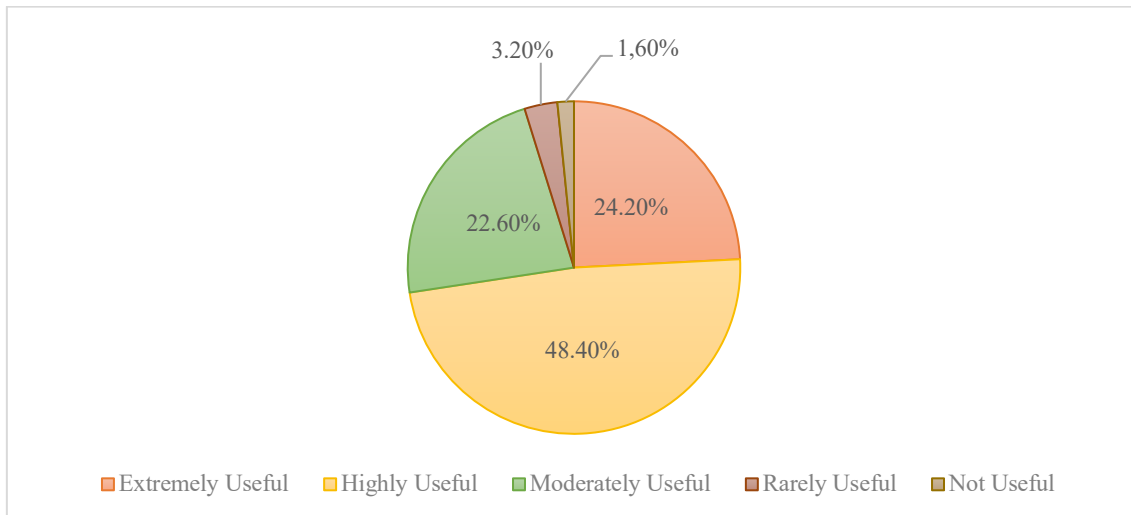
Students used AI for a variety of purposes (multiple answers were allowed). The most frequently reported were "Conducting research" (62.9%, n=39) and "Preparing homework" (62.9%, n=39). This might be a result of the distribution of participants who answered the questionnaire, since most of them were Graduate students (M1 and M2) as shown previously in Figure 1., and this category of students is mostly associated with research work. Therefore, it might be discerned that they employed it for this particular reason. Other common uses were "Practicing English Language Skills" (51.6%, n=32) and "Brainstorming" (50%, n=31) while 21% (n=13) referred to "Proofreading". Other uses reported by students who opted for the "other" option (9.7%, n=6) included information seeking, idea generation, non-academic research, coding, freelance, creating educational content, error correction, learning formal writing (e.g., emails), idea generation, personal activities, paraphrasing, planning, copywriting, trading, learning to speak foreign languages, and making presentations. Results are shown in Figure 4.

Figure 4. Purposes behind using AI Tools



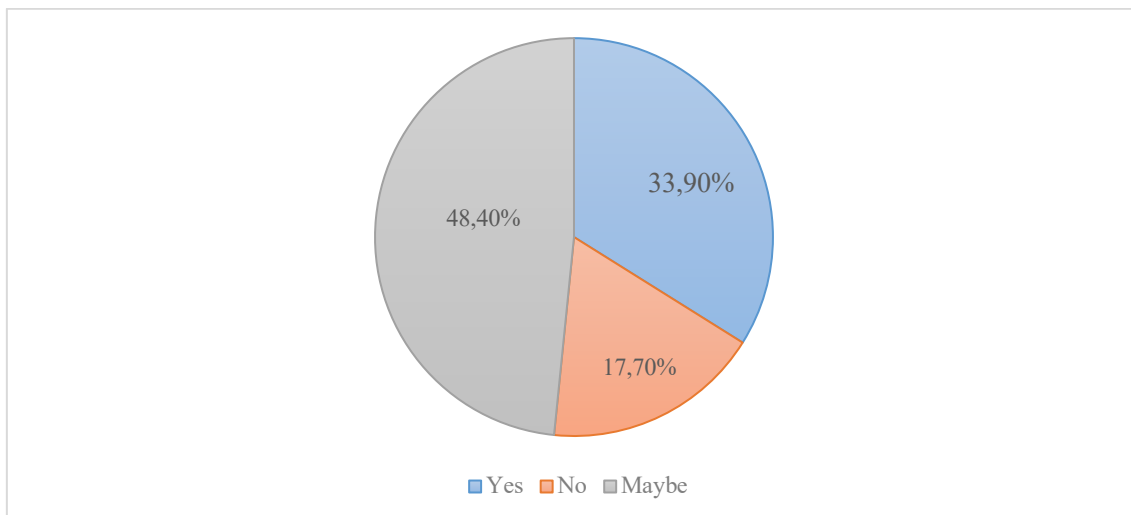
(Source: Online Survey, 2025)

Respondents had mostly positive attitudes toward the usefulness of AI tools for learning (Mean = 3.91, SD = 0.85, N=62), which goes in tandem with their daily use of AI. This perceived usefulness can be a valid component of a future framework for mitigating the use of AI by building upon the Unified Theory of Acceptance and Use of Technology (UTAUT). Nearly half of the students rated AI as "highly useful" (48.4%, n=30), and almost a quarter rated it as "extremely useful" (24.2%, n=15). A further 22.6% (n=14) rated it as "moderately useful," but only a few rated it as "rarely useful" (3.2%, n=2) or "not useful" (1.6%, n=1). This is clearly presented in Figure 5.

Figure 5. AI Technologies' Usefulness for Learning

(Source: Online Survey, 2025)

Despite the perceived usefulness that EFL students mention, they have also expressed concerns regarding the possibility of AI tools hindering their learning. In this vein, 30 respondents have expressed uncertainty regarding this aspect by opting for the “maybe” option (48.4%, n=30), while the rest were divided into believing that it might indeed have an impact on their learning (33.9%, n=21) while others did not share this view and were more optimistic (17.7%, n=11) as illustrated in Figure 6.

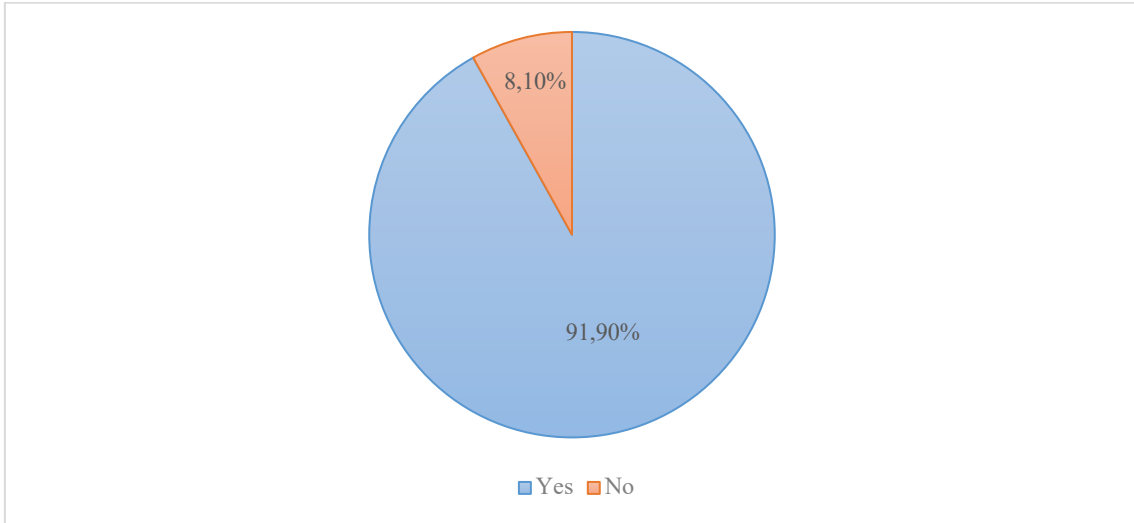
Figure 6. Do you Believe that Relying on These Technologies Gradually Hinders your Learning?

(Source: Online Survey, 2025)

Ethical Awareness of Using AI

The vast majority of student respondents (91.9%, n=57) have expressed familiarity with the concept of "ethics", as shown in Figure 7. Answers were evenly split as to whether or not they discussed AI ethics with teachers: 50% (n=31) said they discussed it, and 50% (n=31) did not. In congruence with these results, the great majority (n=57) believed that teachers should discuss it with their students, which emphasizes the centrality of the teacher's role in tertiary education not only as a guide, but also a mentor. This is shown in Figure 8 (a).

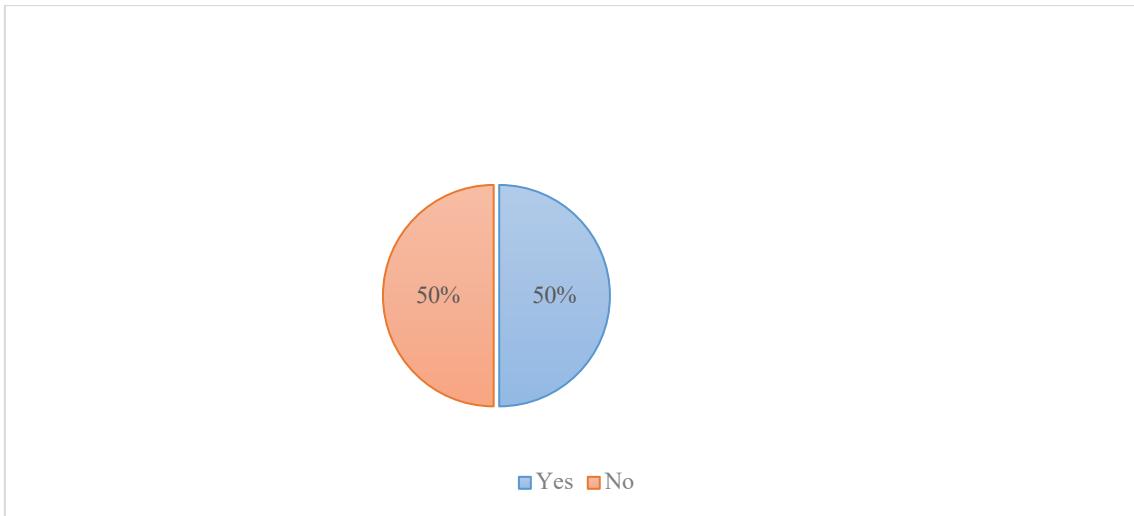
Figure 7. Students' Familiarity with the Concept of AI



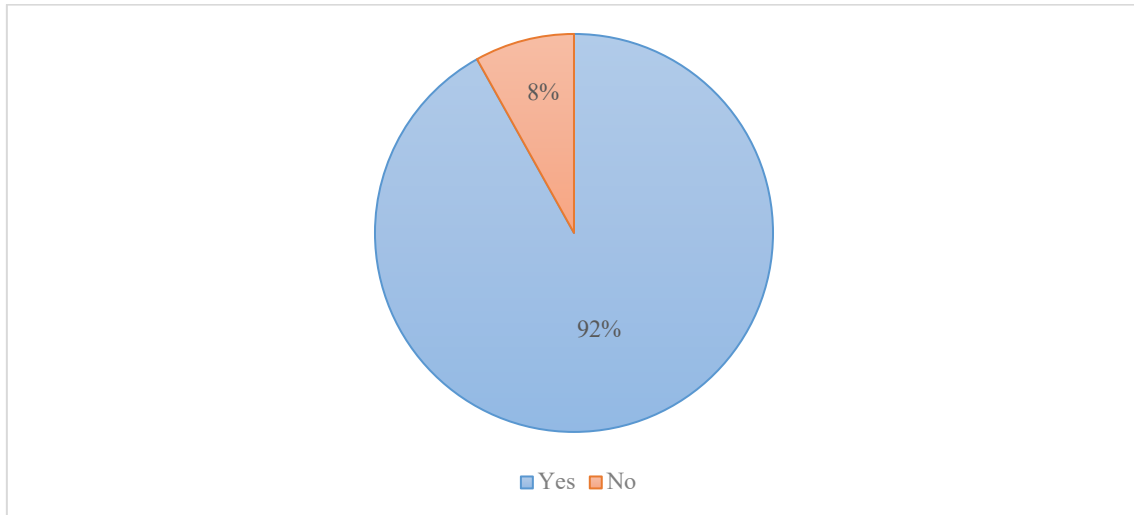
(Source: Online Survey, 2025)

Students' familiarity with artificial intelligence has allowed them to reflect on the necessity for discussing the ethical side of using such technologies with their tutors and the urgency for such discussion. This comes as a byproduct of student-centred approach to learning which is primarily used at the department of English at Souk-Ahras university.

Figure 8.a. Do you Discuss the Ethical Dimension of Using AI with your Teachers?



(Source: Online Survey, 2025)

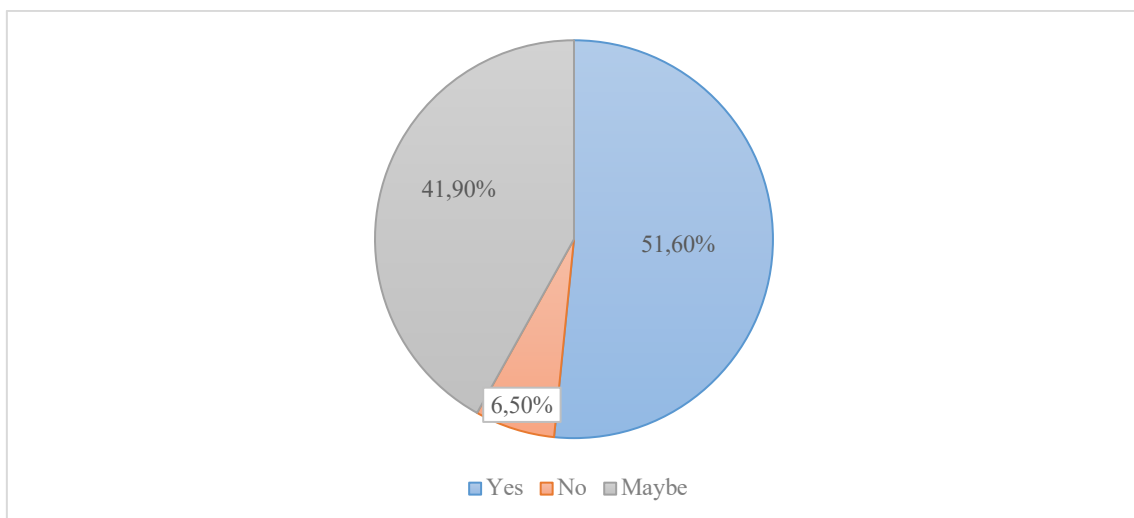
Figure 8.b. Do you Believe that Teachers Need to Discuss the Ethical Dimension with you as Part of their Teaching?

(Source: Online Survey, 2025)

Most of the respondents (51.6%, n=32) believed that AI technologies can raise ethical issues, 41.9% (n=26) replied "maybe," and 6.5% (n=4) believed that they cannot raise such issues (Figure 9).

On the other hand, when students were asked whether or not they morally reflected on their use of AI in learning, the majority of these have responded in the positive, emphasizing the fact that they practice such ethical reflection (82.3%, n=51), whilst 11 respondents did not consider reflecting on their use ethically (17.7%, n=11) as illustrated in Figure 10. Likewise, most did not possess a clear-cut ethical code to apply to their AI implementation (80.6%, n=50) do not have such code, and 19.4% (n=12) have confirmed having such code (Figure 12). Nevertheless, regardless of their actual use of AI in learning and whether they morally reflect on it or not, nearly all the students (96.8%, n=60) expressed the view that the ethical dimension needs to be considered when using AI for study, as shown in Figure 11.

This shows a vacuum between students' awareness of the ethical dimension and their actual application of such dimension. More or less, students appear to be aware of the ethical issues affiliated with the utilization of AI in their learning, however, they fail to apply this awareness to their actual use and this can be attributed to the absence of an ethical code that students consider to follow.

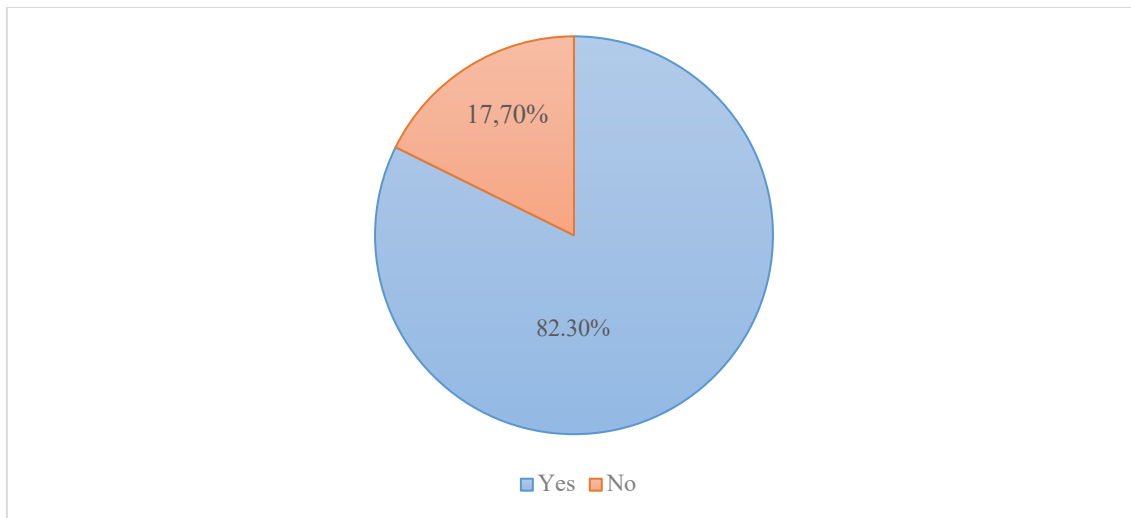
Figure 9. AI Technologies' Possibility to Raise Ethical Issues

(Source: Online Survey, 2025)

The personal reflection of students regarding the use of Artificial Intelligence is believed to be stimulated by reference to the ethics of their role as students. In congruence with students' familiarity with the conception of

ethics, the majority (82.3%, n=51) resort to the ethical dimension as a medium for such reflection on their personal usage.

Figure 10. Personal Reflection of AI Usage with Ethical Dimension in Mind

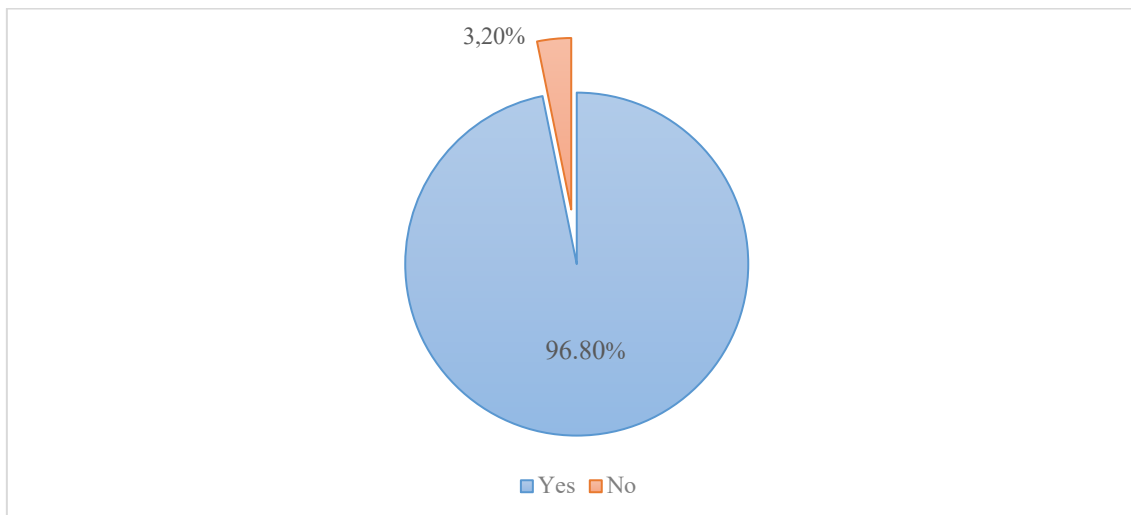


(Source: Online Survey, 2025)

This usage of ethical endowments is believed by students to be a crucial asset while using Artificial Intelligence in education. In comparison with Figure 10, where 82.3% of the students believed that they reflect on their use of AI while keeping the ethical dimension in mind, more students (96.8%, n=60) have held positive beliefs regarding the urgency for considering the ethical dimension while using AI for learning.

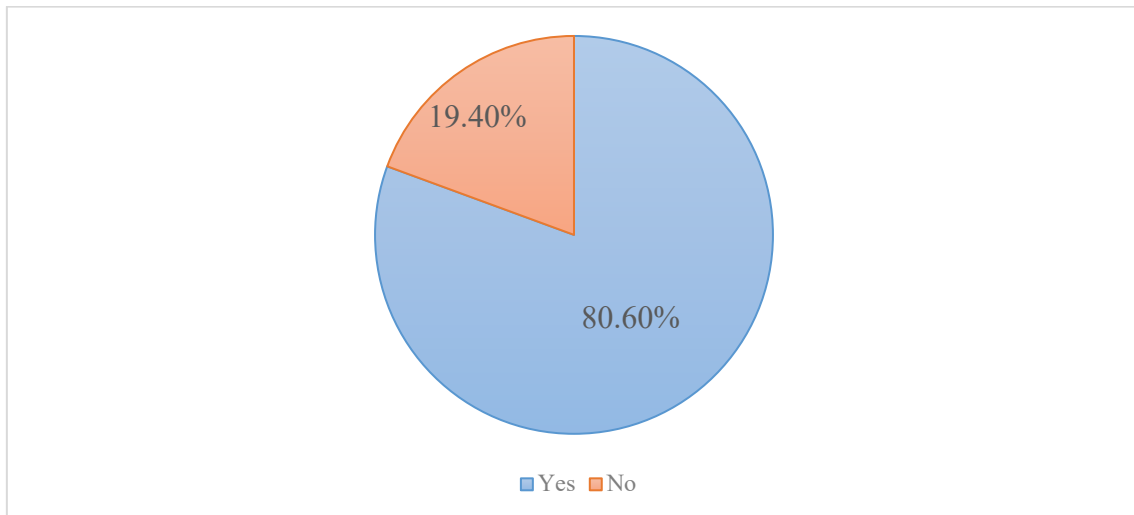
From these data, it is apparent that considering the ethical dimension of using AI technologies finds greater ground when correlated with learning purposes, rather than general usage, and this is illustrated in Figure 11, where the vast majority of students (n=60, 96.8%) have opted for “Yes”.

Figure 11. The need to Consider the Ethical Dimension



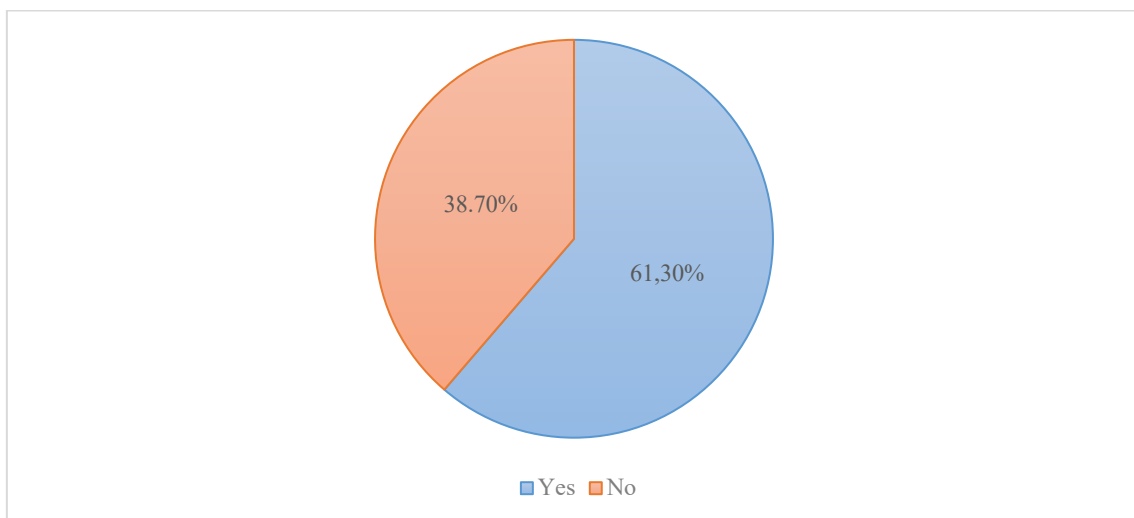
(Source: Online Survey, 2025)

To support the aforementioned claims advocated by students, they were asked whether they are influenced by a particular “ethical code” from which they derive their moral sense. The acquisition of a moral sense was highly correlated with having an ethical code. As the question was specifically targeting the use of Artificial Intelligence for learning, the difference among students who opted for the necessity of considering the ethical dimension when using AI for learning and those who have had a particular ethical code that they resort to whenever reflecting on using AI for learning purposes was only (n=10, 16.2%) students.

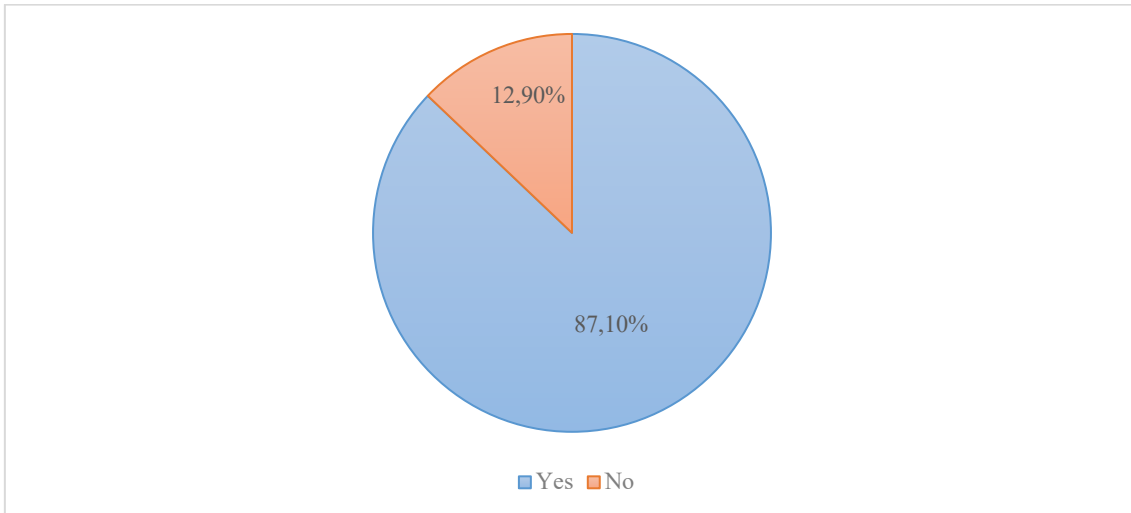
Figure 12. Sources of Reflecting on the Personal Usage of AI for Learning

(Source: Online Survey, 2025)

For the observed unethical activity in AI tools, 61.3% (n=38) reported not having noticed it, while 38.7% (n=24) reported having seen it, and this is shown in Figure 13. It should be clear that lacking ethical reflection is a direct reason for ignoring the ethical issues that might arise when using AI for learning purposes. By far the largest percentage (87.1%, n=54) have maintained that AI tools should be placed under stricter control than they currently are. Therefore, whether ethically aware or not, students are still holding sceptical attitudes towards AI integration. Figure 14 illustrates these views.

Figure 13. Observed AI's Unethical Behaviour

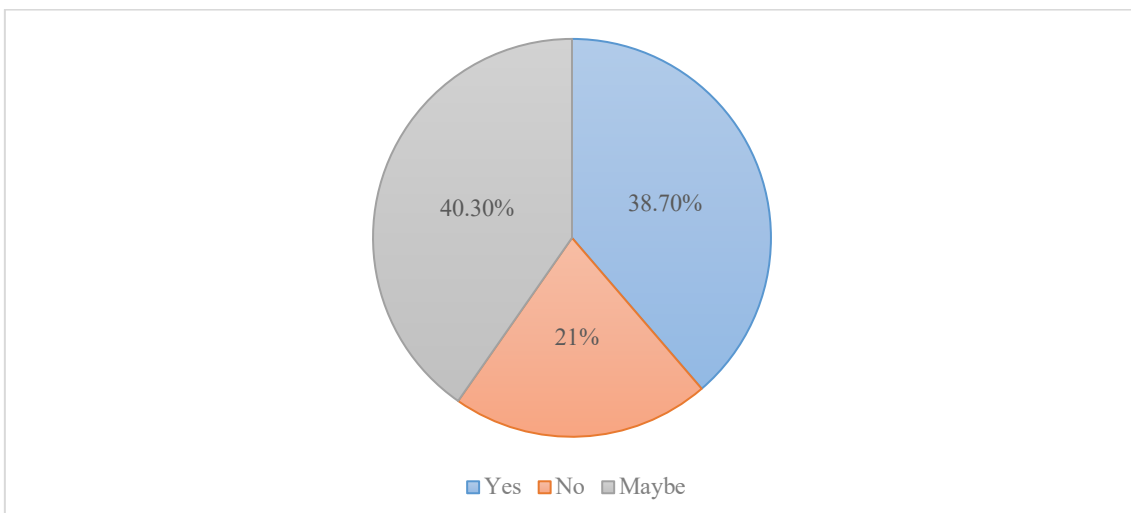
(Source: Online Survey, 2025)

Figure 14. The Need to Control Artificial Intelligence

(Source: Online Survey, 2025)

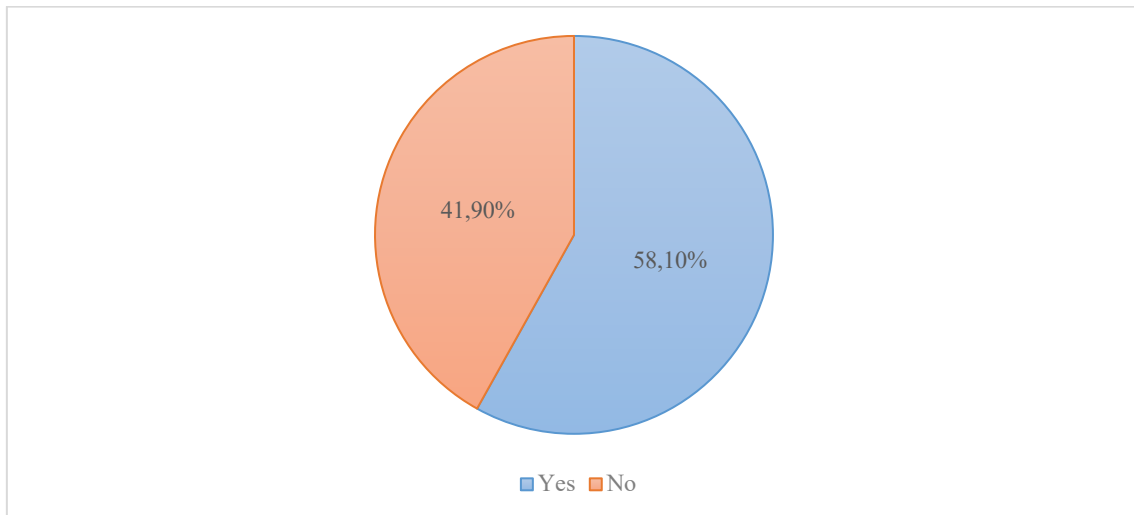
Students were asked to give their perceptions regarding the implications stemming from the unethical use of AI for learning and which were prevalent in the AIED literature. Accessibility perceptions were varied: 40.3% (n=25) of respondents were not sure if AI tools are for all, 38.7% (n=24) of respondents felt that they would not be accessible to every student, and 21% (n=13) disagreed, in that they did not feel that accessibility was a problem (Figure 15).

More students reported they had not experienced privacy concerns (58.1%, n=36) than those reporting having done so (41.9%, n=26) (Figure 16). Additional emphasis has been put on bias. Results show that more than half of the participants (51.6%, n=32) did not have a decisive opinion on whether AI tools promote bias. However, 37.1% (n=23) believed they do, while 11.3% (n=7) believed they don't (Figure 17). Doubtfulness was equally prevalent when students were questioned whether AI is equitable and fair to all users: 38.7% (n=24) were not exactly certain. The remaining students were also split, with 30.6% (n=19) saying "yes" and 30.6% (n=19) saying "no" (Figure 18).

Figure 15. Accessibility of AI tools

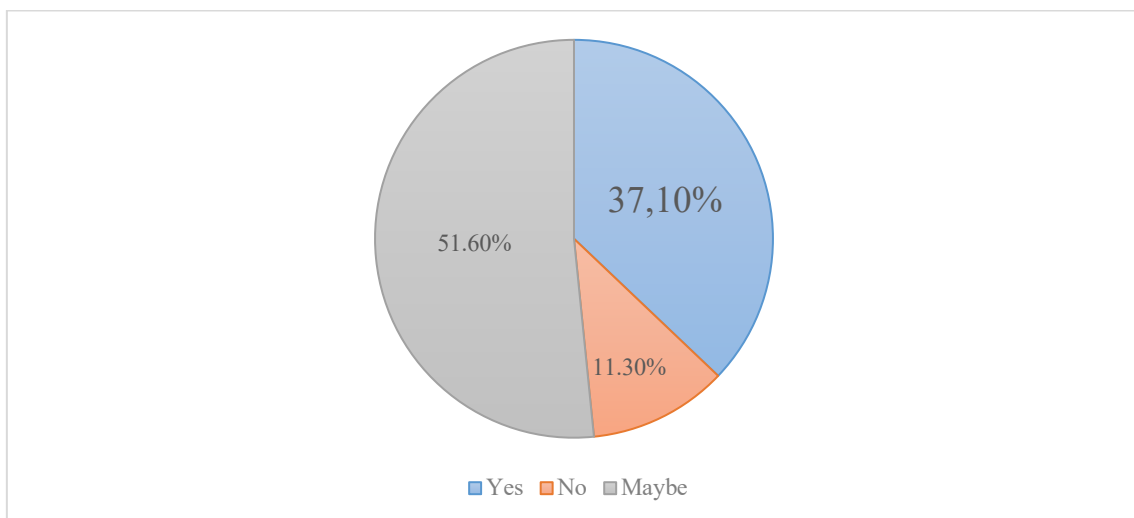
(Source: Online Survey, 2025)

Students were further asked about the most prominent ethical issues raised in the previous literature. The correlation with previous work varies depending on the ethical issue under investigation. Concerns regarding users' personal privacy were caused by their use of Artificial Intelligence for learning purposes were relatively more prominent than not experiencing such concerns.

Figure 16. Privacy Concerns Caused by Using AI for Learning

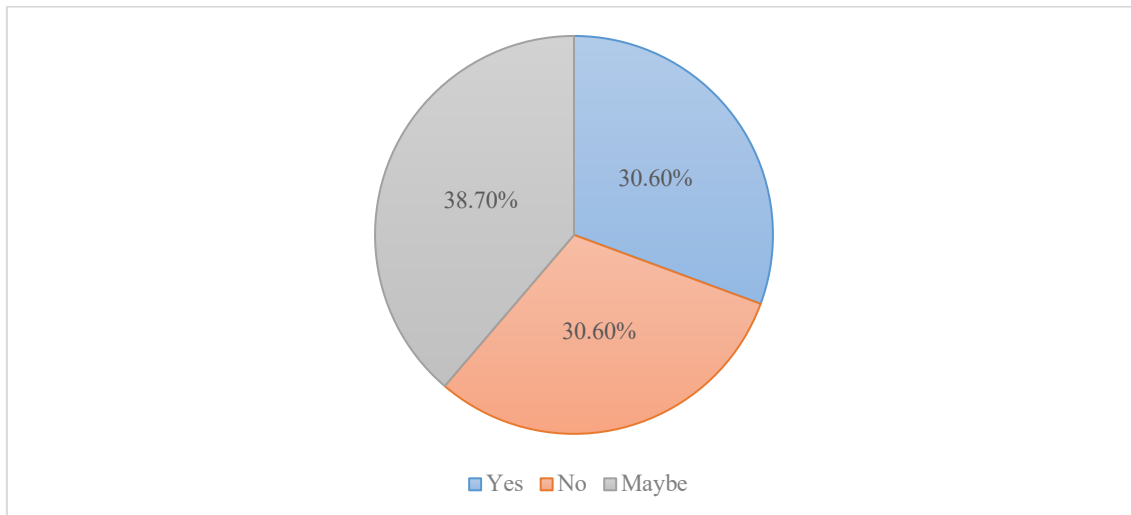
(Source: Online Survey, 2025)

On the other hand, beliefs regarding bias-promotion were varying among users of Artificial Intelligence for learning purposes. The use of these technologies are relatively believed to have biased output, and it is up to the user's personal experience to decide whether to consider this output as biased or not. On a more serious note, it is apparent that most students did not opt for a dichotomous decision (Yes or No), however, they were unsure of AI tools' ability to promote bias. This indicates that there is an apparent degree of hesitance regarding the use of AI tools for learning purposes, and students believe that they cannot opt for a decision at this stage.

Figure 17. AI tools' Potential to Promote Bias

(Source: Online Survey, 2025)

Lastly, the Fairness issue has been represented in the sharpest form of divergence in this study. This highlights "Fairness" as an ethically controversial issue among EFL learners when using Artificial Intelligence tools for learning purposes. This means that AIED research should primarily focus on promoting fairness and equity among EFL learners, specifically at Souk-Ahras University.

Figure 18. Beliefs Regarding AI Tools' Fairness to Users

(Source: Online Survey, 2025)

Discussion

In light of the results of this study, it is possible to address the issues of this research while evaluating its hypotheses. The figures above have presented EFL student views concerning the utilization of AI technologies and their perceived implications, from an EFL student point of view, in a systematic way using descriptive analysis of the findings collected through questionnaires that were conveniently distributed. Results are complementary to each other and provide a comprehensive picture of the status quo of the examined issue.

Initially, results unequivocally address H1 via showcasing that EFL students hold positive attitudes towards AI in their learning, as it appears to be mutually consistent with their daily consumption of AI showing a consistent behavior stimulated by AI tools where they are integrated when it comes to a crucial part of students' life which is learning. This is clearly illustrated in the high mean score regarding how they found it useful (Figure 4, Mean=3.91) and amplified by the universal adoption of AI for learning purposes (Figure 1.b, 96.8%). This further exemplified by the relatively frequent daily integration, which can be considered evidence that EFL students want to use these tools in increasing numbers.

On a similar note, students are not only haphazardly using AI, but they are integrating it for the sake of achieving specific learning objectives, which outlines an amateur yet decently valid approach to learning. This is clearly illustrated in Figure 2 where students emphasize the types of AI tools they most frequently utilize in their learning endeavors, while also providing additional uses that went beyond the literature examined. However, there is a certain degree of apprehension mediated through their responses in the questionnaire and specifically illustrated in Figure 5, where nearly half the students have expressed uncertainty (48.4% answering with 'maybe') in addition to a substantial minority expressing concern of AI tools hindering their learning (33.9% answering with 'Yes'). This comes in congruence with the concern addressed by Cheng et al. (2020) regarding AI tools' promotion of shallow learning, which might result in over-reliance on these technologies. These concerns expressed by students along with the harms resulting from the misuse of AI tools require the development of clear measures and guidelines for students to follow in order to achieve their desired learning objectives without exacerbating their learning difficulties.

Moving forward, the study examines students' reactions to the emerging ethical conundra that AI tools present after both misuse and over-use, and which can only be clearly visualized when someone is endowed with a certain degree of ethical awareness. Students' ethical awareness was put into scrutiny by providing them with different questions that can reflect their current state regarding this moral endowment. The results do in fact support H2 suggesting that EFL students do have a shallow conception of the ethical dimension behind using AI technologies for learning purposes. Regardless of the apparent familiarity with the concept of "ethics" by the participating EFL students (Figure 6, 91.9%) and their support for ethical considerations of using AI for learning (Figure 11, 96.8%), their practical application and depth of understanding appear limited. The most apparent indicator of this gap is addressed in the previous section, which is the deep contrast between their claim to morally reflect on their use of AI (Figure 9, 82.3%) and the absence of a particular ethical code for resorting to (Fig 10, only 19.4%). Despite that EFL students do in fact morally reflect and judge their practices

of using AI tools for learning purposes, this awareness may not translate into a valid ethical framework for their learning conduct, and cannot be replicated in case of similarity in moral conundra that face students while employing AI tools for learning purposes.

Students are in need of clear set of guidelines as they demand more control over these tools (Figure 13, 87.1%). In fact, the gap mentioned above gets more significance when it is contextualized within Algerian higher education policies. The AUCDE (2023 version) clearly addresses the need to tackle the issues of digital ethics and the need for mitigating AI. In this vein, a profound issue might arise when this charter is disseminated at HEIs might not find ground within the widespread uncertainty among students about specific AI-related ethical issues like bias and fairness (Figures 16, 17). Therefore, empirical utilization of AI technologies should come prior to disseminating such policies, so students can be mentally prepared to build an ethical framework for their learning endeavors upon their existing contemplations about ethical implications. This is where the role of teachers as transmitters of ethical awareness comes in, as they convey to their learners the content of what is to be studied.

Recommendations

A holistic understanding of the ethical dimension cannot be achieved by one research paper. The development of such awareness of ethical issues must be seen as a formative evaluation process that is longitudinal in nature. Therefore, in addition to EFL students, all tertiary education's stakeholders should be subjects and sources for credible data to be used for ameliorating teaching and learning practices, with a particular emphasis on teachers and learners as the foundation for this process.

Conclusions

In the realm of student-centredness, it is crucial to consider learners as the catalysts for the success or failure of any novel teaching/learning practices. Therefore, attention need to be exerted upon the internal aspects of learning, and among them ethical awareness. The sensitivity of the latter requires continual teacher support in order to foster its development, so learners can apply it appropriately. However, the voices of the majority deprive this process by ignoring the profound aspects of ethical awareness possessed by the minority that might have a distinct perception of this latter.

Therefore, more qualitative research should be done regarding this. It is further investigated in the researcher's master's dissertation where phenomenological inquiry is applied with participants who expressed a decent degree of ethical awareness based on a purposive sampling strategy.

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