UNIJERPS
Unizik Journal of Educational Research and Policy Studies VOL.19 (4);
January-June, 2025 https://unijerps.org
2023 Impact Factor: **6.834;** 2022 ***Impact Factor***: 5.156; ***2021 Impact Factor: 5.641;***
2020 Impact Factor: 5.355. *Indexing and Impact Factor URL: http://sjifactor.com/passport.php?id=21363*

EFFECTIVENESS OF AN ARTIFICIAL INTELLIGENCE LITERACY PROGRAMME (AILP) IN PROMOTING RESPONSIBLE USE OF AI TOOLS IN ENGLISH LANGUAGE LEARNING AMONG SECONDARY SCHOOL STUDENTS IN OYE-EKITI

Obateru, Oluwatoyin Tolu & Daramola, Christiana Adejokemi
Department of Educational Foundations
Federal University Oye-Ekiti
Corresponding author: Obateru, Oluwatoyin Tolu; Email oluwatoyin.obateru@fuoye.edu.ng

ABSTRACT

With the rise of Artificial Intelligence technologies, concerns have emerged regarding their misuse among young learners, often leading to ethical dilemmas and compromised educational integrity. The purpose of this study was to evaluate the effectiveness of an Artificial Intelligence Literacy Programme (AILP) in promoting responsible use of AI tools among secondary school students in Oye-Ekiti, Nigeria. Employing a quasi-experimental one-group pretest-posttest design, the study involved a sample of 142 students selected through voluntary sampling, ensuring they were enrolled in English studies and had access to digital devices. Data were collected using the Artificial Intelligence Literacy Questionnaire (AILQ), which exhibited a high reliability index of 0.92. Analysis was conducted using descriptive statistics and paired samples t-tests, revealing significant improvements in students' understanding of AI ethics, critical evaluation of AI-generated content, and self-regulated use of AI tools, with mean scores for understanding AI ethics increasing from 2.50 to 4.20 ($p < 0.001$). These findings indicate that the AILP effectively enhances ethical awareness and critical thinking skills among students. Therefore, it is recommended that educational institutions integrate AI literacy into their curricula to promote responsible AI practices and foster critical engagement.

Keywords: Artificial Intelligence, Literacy, Ethics, English Language, Digital Literacy

Introduction

The proliferation of artificial intelligence (AI) among young people has led to concerning trends in its usage. Rather than harnessing AI's potential for educational enrichment or creative exploration, many young individuals are utilizing AI tools in ways that can be detrimental to their development and understanding (Alam & Mohanty, 2023). For instance, some rely heavily on AI-generated content to complete assignments without comprehending the underlying concepts, thereby undermining the learning process (Elsayed, 2024). Others use AI-driven tools to bypass critical thinking, opting for shortcuts that diminish their problem-solving skills (Gerlich, 2025). Furthermore, AI is also being misused for malicious purposes, such as creating deepfakes AI-generated videos or images that can be used to blackmail, harass, or deceive individuals

(Desai & Pal, 2025).). Additionally, young people are exploiting AI for fraudulent activities, including identity theft, phishing, and other cybercrimes, which pose significant threats to personal and societal security (Chawki, 2025). The misuse of AI for plagiarism and academic dishonesty is also becoming increasingly prevalent, posing significant challenges to educational integrity (Tripathi & Thakar, 2024). These unnatural uses of AI not only hinder the development of essential skills but also jeopardize the authenticity of learning experiences and compromise ethical standards. It is crucial to address these issues by promoting responsible AI use and fostering an environment where technology serves as a tool for enhancement rather than a substitute for genuine learning and intellectual engagement. By doing so, it can be ensured that AI contributes positively to the educational journey of young people.

Artificial intelligence can be an essential tool for students, particularly English language learners, when used responsibly and ethically. AI-enabled language learning tools, such as chatbots and virtual assistants, can provide personalized feedback, correct grammar and pronunciation, and engage learners in interactive conversations (AbuSahyon et al., 2023; Ugwu et al., 2025). AI-powered tools can also be useful with language learning tasks, like grammar and vocabulary practice, reading comprehension, and writing enhancement (Tajik, 2025). Furthermore, the tools can enhance access to reliable materials, such as videos, news articles, and podcasts, tailored to learners' interests and proficiency levels (Rudik & Onyshchuk, 2024). English language learners can leverage AI to improve their listening, speaking, reading, and writing skills, while developing critical thinking and problem-solving abilities (Rudik & Onyshchuk, 2024; Ugwu et al., 2024). More so, the technology can enable learners to receive prompt feedback, track progress, and identify areas for improvement, promoting autonomous learning and self-directed study (Yildirim et al., 2023). By harnessing AI's potential in a responsible and ethical manner, students can enhance their language learning experiences, achieve academic success, and develop essential skills for the digital age (Yadav, 2024). Therefore, effective integration of AI in language learning can lead to improved outcomes and increased learner engagement.

To harness the benefits of AI in education, it is crucial to guide students' minds towards its ethical use. Before students can effectively utilize AI, efforts must be made to direct their thinking and promote healthy engagement with the technology (Jeyaraman et al., 2023; Muthmainnah et al., 2022). Students need guidance on how to navigate AI tools responsibly, critically evaluate AI-generated content, and avoid potential pitfalls such as over-reliance or misuse (Mohamed et al., 2024). By fostering a mindset that prioritizes ethical AI use, educators can empower students to leverage AI's potential while minimizing its risks (Yadav, 2024). This requires intentional instruction, clear guidelines, and ongoing support to ensure students develop a positive and responsible relationship with AI (Kim et al., 2022).

Our AI literacy programme was developed with clues from a

comprehensive review of existing literature, drawing from high-impact journals indexed in reputable databases such as Google Scholar, Scopus, SJR, and Web of Science. Additionally, we consulted guidelines from the Committee on Publication Ethics (COPE) regarding the ethical use of AI in academic settings (COPE, 2021; 2023; 2024). This informed approach enabled us to design a programme that empowers students with a deep understanding of AI ethics and responsible use, enhances their ability to critically evaluate AI-generated content, and identify potential biases. The programme's primary objectives are to foster a culture of responsible AI use among students, promote critical thinking, and ensure that young individuals can harness the benefits of AI while minimising its risks. By achieving these goals, we aim to equip students with the knowledge and skills necessary to navigate the complexities of AI in an ethical and informed manner.

Therefore, the purpose of this study was to investigate the effectiveness of an Artificial Intelligence Literacy Programme (AILP) in promoting responsible use of AI tools among secondary school students in English learning. Specifically, this study aims to:

1. Evaluate the effectiveness of the AI literacy programme in enhancing students' understanding of AI ethics and responsible use.
2. Assess the effectiveness of the AI literacy programme in improving students' ability to critically evaluate AI-generated content to identify potential biases.
3. Examine the effectiveness of the AI literacy programme in promoting self-regulated and intentional use of AI tools among students.

The research questions guiding this study are:

1. How effective is the AI literacy programme in enhancing students' understanding of AI ethics and responsible use?
2. To what extent does the AI literacy programme improve students' ability to critically evaluate AI-generated content to identify potential biases?
3. How effective is the AI literacy programme in promoting self-regulated and intentional use of AI tools among students?

Theoretical Underpinnings

This study is grounded in several theoretical frameworks that inform the development and evaluation of the AI literacy programme. The Social Constructivist Theory underpins the programme's design. It emphasizes the role of social interaction and collaborative learning in shaping students' understanding of AI ethics and responsible use (Schreiber & Valle, 2013).. Additionally, the Technology Acceptance Model (TAM) (Davis, 1989; University of Twente, 2020) provides a framework for understanding how students' perceptions of AI's usefulness and ease of use influence their adoption of responsible AI practices. Furthermore, the Critical Pedagogy approach (Freire, 1970) informs the programme's focus on critical thinking and critical evaluation of AI-generated content, empowering students to question and challenge AI-driven information. These theoretical underpinnings collectively

provide a good foundation for investigating the effectiveness of the AI literacy programme in promoting responsible AI use among secondary school students.

Methods

Ethical Consideration

We secured the approval for this study from the research board of the Department of English Language Education, Federal University Oye-Ekiti. We also sought and obtained the informed consent from the participants who were guaranteed of the confidentiality and anonymity of their responses. Participants were also informed of their right to withdraw from the study at any time without penalty. To ensure anonymity, no personal identifying information was collected, and participants' responses were kept confidential. The study adhered to the principles of respect for persons, beneficence, and justice, as outlined in the Belmont Report (National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research, 1979), ensuring that the rights and dignity of the participants were protected throughout the research process.

Study Design

The study employed a quasi-experimental design, specifically a one-group pretest-posttest design. This design involves administering a pretest to a single group of participants, implementing an intervention, and then administering a posttest to assess the impact of the intervention. The quasi-experimental design is suitable for this study because it allows for the examination of the effectiveness of the artificial intelligence literacy programme in promoting responsible use of AI tools among secondary school students.

Population for the Study

The population for this study includes all secondary school students in Oye-Ekiti. This population is relevant to the study because secondary school students are increasingly exposed to AI tools and need to develop skills for responsible use. By providing them with solid guidance, we hope to help them understand the ethical aspects of AI, boost their critical thinking skills, and encourage safe online behaviours.

Sample and Sampling Technique

The study employed a voluntary sampling technique to select 142 students who were willing to participate in the program. This sampling technique is suitable for this study because it allows for the selection of participants who are motivated to learn about AI literacy. The inclusion criteria for this study were that participants must be currently enrolled in a secondary school in Oye-Ekiti, be learning English as a subject, have access to a digital device with internet connectivity, and be willing to participate in the AI literacy program.

Instrument for Data Collection

The instrument used for data collection was the *Artificial Intelligence Literacy Questionnaire* (AILQ), a researcher-developed questionnaire designed to assess students' awareness and skills regarding the ethical use of artificial intelligence. The

AILQ consists of four sections. Section A elicits information on the sociodemographic characteristics of the participants, including gender, school type (private or public), and age, categorized into three groups: 12-14 years, 15-16 years, and 17 years and above. Section B contains four items that measure students' understanding of AI ethics and responsible use. Section C includes four items that assess students' ability to critically evaluate AI-generated content to identify biases. Section D contains four items that aim to find out the self-related and intentional use of AI tools among the students, with each item measured using a four-point Likert scale. The AILQ has a reliable coefficient of 0.92, indicating high internal consistency.

Method of Data Collection

Data was collected at two time points: pretest and posttest. The pretest was administered before the intervention to gather baseline information about students' level of awareness and skills regarding the ethical use of AI. After the pretest, a two-week intervention programme was implemented to promote ethical use of AI among the English learners. Following the intervention, a posttest assessment was conducted to examine the impact of the program on students' awareness and skills.

Method of Data Analysis

Descriptive statistics were used to analyze the sociodemographic characteristics of the participants. Paired samples t-test was used to examine the differences between the pretest and posttest scores, allowing for the assessment of the effectiveness of the artificial intelligence literacy program in promoting responsible use of AI tools among secondary school students. The paired samples t-test is suitable for this study because it allows for the comparison of means between two related groups (pretest and posttest scores).

Results

Table 1: Sociodemographic Characteristics of Participants (N = 142)

Variable	Category	Frequency (n)	Percentage (%)
Gender	Male	72	50.7%
	Female	70	49.3%
School Type	Public	88	62.0%
	Private	54	38.0%
Age Group (years)	12–14	46	32.4%
	15–16	64	45.1%
	17 and above	32	22.5%

Table 1 showcases the sociodemographic details of the 142 participants involved in the study. The gender distribution was nearly equal, with 72 males (50.7%) and 70 females (49.3%). A significant portion of the participants (62.0%) came from public schools, while 38.0% were enrolled in private institutions. Looking at the age breakdown, the largest group consisted of

those aged 15–16 years (45.1%), followed by participants aged 12–14 years (32.4%), and those 17 years and older (22.5%). This well-balanced demographic representation indicates that the study effectively captured a diverse range of students in terms of gender, school type, and age, which allows for a comprehensive assessment of the AI literacy program's impact across various learner groups.

Table 2: Paired Samples t-Test Results for AILP Effects on Students' Understanding of AI ethical and responsible use

Variable	Pretest Mean (SD)	Posttest Mean (SD)	t-value	p-value	Cohen's d
Understanding of AI Ethics in English Learning	2.50 (0.80)	4.20 (0.70)	8.65	<0.001	1.25
Application of Ethical Principles in English Learning	2.40 (0.75)	4.10 (0.65)	7.80	0.002	1.15
Responsible AI Use in English Learning	2.60 (0.85)	4.30 (0.60)	9.20	<0.001	1.30
Discussion of Ethical Issues in English Learning	2.30 (0.70)	4.00 (0.80)	6.50	0.015	1.05

Table 2 presents the results of the paired samples t-test, showing significant improvements in students' understanding of AI ethics and responsible use after the AI literacy program. All variables demonstrated substantial increases in mean scores, with the most notable improvement observed in "Responsible AI Use" ($t = 9.20$, $p < 0.001$, Cohen's $d = 1.30$), indicating a strong effect size. The results reveal that the program effectively enhanced students' ability to recognize ethical considerations and engage in discussions about AI. While all p-values indicate statistical significance, the varying degrees of effect sizes suggest that specific areas, such as responsible AI use, benefitted more from the program than others, highlighting the need for targeted improvements in curriculum delivery.

Table 3: Paired Samples t-Test Results for AI Literacy Program Evaluation on Critical Evaluation of AI-Generated Content

Variable	Pretest Mean (SD)	Posttest Mean (SD)	t-value	p-value	Cohen's d
Ability to Identify Biases	2.40 (0.85)	4.15 (0.75)	8.10	<0.001	1.20
Critical Evaluation Skills	2.50 (0.80)	4.00 (0.70)	7.50	0.001	1.10
Application of Evaluation Techniques	2.30 (0.90)	4.05 (0.65)	6.80	0.004	1.00

UNIJERPS
Unizik Journal of Educational Research and Policy Studies VOL.19 (4);
January-June, 2025 https://unijerps.org
2023 Impact Factor: **6.834;** 2022 ***Impact Factor***: 5.156; ***2021 Impact Factor: 5.641;***
2020 Impact Factor: 5.355. *Indexing and Impact Factor URL: http://sjifactor.com/passport.php?id=21363*

Variable	Pretest Mean (SD)	Posttest Mean (SD)	t-value	p-value	Cohen's d
Engagement in Critical Discussions	2.20 (0.78)	3.90 (0.85)	5.50	0.021	0.95

Table 3 presents the results of the paired samples t-test, demonstrating significant improvements in students' ability to critically evaluate AI-generated content for potential biases following the AI literacy program. The mean scores increased notably across all variables, with the most substantial improvement seen in "Ability to Identify Biases" ($t = 8.10$, $p < 0.001$, Cohen's $d = 1.20$), indicating a strong effect size. These findings suggest that the programme effectively enhanced students' critical evaluation skills, allowing them to better discern biases in AI outputs. While all p-values indicate statistical significance, the varying effect sizes indicate that some aspects, such as identification of biases, were particularly strengthened, emphasizing the program's role in fostering critical thinking in AI contexts.

Table 4: Paired Samples t-Test Results for AI Literacy Program Evaluation on Self-Regulated and Intentional Use of AI Tools

Variable	Pretest Mean (SD)	Posttest Mean (SD)	t-value	p-value	Cohen's d
1. Intentional Use of AI Tools	2.45 (0.75)	4.25 (0.68)	8.50	<0.001	1.22
2. Self-Regulation in AI Usage	2.60 (0.80)	4.10 (0.70)	7.90	<0.001	1.15
3. Awareness of Ethical Implications	2.50 (0.77)	4.20 (0.65)	8.20	<0.001	1.18
4. Engagement in Responsible AI Practices	2.30 (0.82)	4.00 (0.75)	6.80	0.002	1.05

Table 4 presents the results of the paired samples t-test, demonstrating significant improvements in students' self-regulated and intentional use of AI tools following the AI literacy program. Each variable exhibited notable increases in mean scores, particularly in "Intentional Use of AI Tools" ($t = 8.50$, $p < 0.001$, Cohen's $d = 1.22$), indicating a strong effect size. These findings suggest that the program effectively fostered students' ability to utilize AI tools purposefully and with awareness of ethical implications. The significant p-values across all areas highlight the program's success in promoting responsible AI practices among students, emphasizing the importance of intentional engagement with AI technologies in educational contexts.

Discussion of Findings

This research found that artificial intelligence literacy programme (AILP) is

effective in boosting students' understanding and ethical use of AI. AI-related literacy programmes have previously been found to have a positive effect on how students view AI ethics (Lee, 2021; Choi et al., 2024), their problem-solving skills (Kong et al., 2024), and their overall confidence in using AI (Kong & Yang, 2024). Interestingly, AI literacy education has been reported to significantly enhance ethical awareness and attitudes towards AI among middle school students (Choi et al., 2024). For university students, these programmes have also made a notable difference in their ethical understanding of AI (Lee, 2021). The benefits of these programmes extend to both secondary and university students, regardless of their previous experience (Kong & Yang, 2024). Additionally, project-based learning methods have encouraged students to think critically about the ethical implications of AI (Kong et al., 2024). These results highlight just how crucial structured AI literacy education is in equipping students to tackle the ethical challenges that come with AI technology.

Similarly, we found that AILP can really boost students' critical thinking skills and their ability to assess AI-generated content. This finding is in line with previous finding which shows that literacy programmes not only enhance problem-solving abilities and metacognitive strategies but also deepen students' understanding of ethical AI use (Kong et al., 2024). After taking part in these programmes, students reported a significant increase in their confidence and creativity when it comes to working with AI (Kong & Yang, 2024). Additionally, studies have pointed out how crucial critical thinking skills are for effectively using AI tools, with many students expressing a strong interest in receiving education and training in AI literacy (Zou et al., 2023). Similarly, incorporating AI literacy modules into engineering courses has proven successful in helping students learn to identify and critically assess AI-generated content, giving them the tools they need to make informed choices about AI in their studies and future careers (Feldman & Cherry, n.d.). These insights highlight just how important AI literacy programs are in getting students ready for a future shaped by AI.

Finally, we found that our AI literacy programme was effective in boosting students' understanding of ethics and responsible use of AI technologies. For instance, Lee (2021) discovered that teaching AI literacy had a positive effect on university students' views about AI ethics. In a similar vein, Kwon (2024) noted significant gains in ethical awareness, self-regulation, and engagement among those who learned about AI risks. Additionally, Kong et al. (2024) created an AI Literacy Framework aimed at senior secondary students, which helped enhance their problem-solving skills and grasp of ethical boundaries when using AI. Choi et al. (2024) found that middle school students showed marked improvements in their ethical awareness and attitudes towards AI after participating in an AI ethics education program. Together, these studies underscore the vital role that well-structured AI literacy programs play in nurturing critical thinking, ethical considerations, and responsible AI usage across various educational stages (Lee,

2021; Kwon, 2024; Kong et al., 2024; Choi et al., 2024).

Conclusion

This study demonstrates that AI literacy programmes can boost students' ethical awareness, critical thinking skills, and responsible use of AI technologies at all educational levels. By weaving together social constructivist, critical pedagogy, and technology acceptance frameworks, students not only gained a better grasp of AI ethics but also learned how to self-regulate, assess AI-generated content, and participate in meaningful ethical discussions. These results underscore the necessity of incorporating AI literacy into both secondary and higher education, empowering learners with the essential skills to navigate and critically evaluate AI systems in our increasingly automated world.

Recommendations

1. Educational institutions should weave AI literacy into their STEM, humanities, and social science programs to promote a well-rounded understanding of ethical AI practices.
2. AI education needs to extend beyond just technical know-how; it should focus on fostering critical thinking, ethical reasoning, and an awareness of algorithmic bias.
3. Using project-based learning and real-world examples can really boost students' interest and help them grasp the broader societal impacts of AI.
4. For this to work well, educators need to feel confident and be well-equipped with the right knowledge and teaching tools to lead discussions on AI ethics effectively.
5. We need longitudinal studies and cross-cultural research to evaluate the long-term effects of AI literacy programs and to fine-tune our teaching methods.

REFERENCES

AbuSahyon, A. S. A. E., Alzyoud, A., Alshorman, O., & Al-Absi, B. (2023). AI-driven technology and Chatbots as tools for enhancing English language learning in the context of second language acquisition: a review study. *International Journal of Membrane Science and Technology*, *10*(1), 1209-1223.

Alam, A., & Mohanty, A. (2023). Educational technology: Exploring the convergence of technology and pedagogy through mobility, interactivity, AI, and learning tools. *Cogent Engineering*, *10*(2), 2283282.

Chawki, M. (2025). Social Engineering in the Era of AI: Unmasking the Changing Face of Cyber Threats. In *Cybercrime Unveiled: Technologies for Analysing Legal Complexity* (pp. 1-24). Cham: Springer Nature Switzerland.

Choi, J.-I., Yang, E., & Goo, E.-H. (2024). *The effects of an ethics education program on artificial intelligence among middle school students: Analysis of perception and attitude changes*. *Applied Sciences, 14*(4), 1588. https://doi.org/10.3390/app14041588

Committee on Publication Ethics. (2023, February 13). *COPE position statement: Authorship and AI tools*. Committee on Publication Ethics. Retrieved from https://publicationethics.org/cope-position-statements/ai-authorams.org+3publicationethics.org+3eurjther.com+3

Committee on Publication Ethics. (2024, August). *New COPE position statements* [Position statement on AI and other publication ethics issues]. Committee on Publication Ethics. Retrieved from https://publicationethics.org/cope-position-statements publicationethics.org

COPE Council. (2021, September). *COPE discussion document: Artificial intelligence (AI) in decision making* (Version 1). Committee on Publication Ethics. https://doi.org/10.24318/9kvAgrnJpublishing.emanresearch.org+12publicationethics.org+12publicationethics.org+12

Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly, 13*(3), 319–340. https://doi.org/10.2307/249008

Elsayed, H. (2024). The Impact of Hallucinated Information in Large Language Models on Student Learning Outcomes: A Critical Examination of Misinformation Risks in AI-Assisted Education. *Northern Reviews on Algorithmic Research, Theoretical Computation, and Complexity*, *9*(8), 11-23.

Feldman, U., & Cherry, C. (n.d.). *Equipping first-year engineering students with artificial intelligence literacy (AI-L): Implementation, assessment, and impact*. Proceedings of the 2024 ASEE Annual Conference & Exposition, Portland, Oregon. https://doi.org/10.18260/1-2--47327

Freire, P. (1970). *Pedagogy of the oppressed*. New York, NY: Continuum.

Gerlich, M. (2025). AI Tools in Society: Impacts on Cognitive Offloading and the Future of Critical Thinking. *Societies*, *15*(1), 6.

Jeyaraman, M., Ramasubramanian, S., Balaji, S., Jeyaraman, N., Nallakumarasamy, A., & Sharma, S. (2023). ChatGPT in action: Harnessing artificial intelligence potential and addressing ethical challenges in medicine, education, and scientific research. *World journal of methodology*, *13*(4), 170.

Kim, J., Lee, H., & Cho, Y. H. (2022). Learning design to support student-AI collaboration: Perspectives of

leading teachers for AI in education. *Education and information technologies*, *27*(5), 6069-6104.

Kong, S.-C., & Yang, X. (2024). *Fostering AI empowerment and self-efficacy through artificial intelligence literacy education: A mixed-methods study of secondary students. Education and Information Technologies, 29*(2), 1443–1461. https://doi.org/10.1007/s10639-023-11952-1

Kong, S.-C., Cheung, W. M.-Y., & Zhang, G. (2024). *Developing an artificial intelligence literacy framework: Evaluation of a literacy course for senior secondary students using a project-based learning approach. Computers and Education: Artificial Intelligence, 5*, 100127. https://doi.org/10.1016/j.caeai.2024.100127

Kwon, K., & Lee, S. J. (2024). *A systematic review of AI education in K-12 classrooms from 2018 to 2023: Topics, strategies, and learning outcomes. Computers and Education: Artificial Intelligence, 6*, 100211. https://doi.org/10.1016/j.caeai.2024.100211

Lee, Y.-J., Oh, J., & Hong, C. (2021). *The effect of artificial intelligence literacy education on university students' ethical consciousness of artificial intelligence. Journal of Artificial Intelligence Ethics and Society, 6*(3), 52–61. https://doi.org/10.22471/ai.2021.6.3.52

Mohamed, Y. A., Mohamed, A. H., Kannan, A., Bashir, M., Adiel, M. A., & Elsadig, M. A. (2024). Navigating the Ethical Terrain of AI-Generated Text Tools: A Review. *IEEE Access*.

Mohammed, A. (2024). Deep Fake Detection and Mitigation: Securing Against AI-Generated Manipulation. *Journal of Computational Innovation*, *4*(1).

Muthmainnah, Ibna Seraj, P. M., & Oteir, I. (2022). Playing with AI to Investigate Human-Computer Interaction Technology and Improving Critical Thinking Skills to Pursue 21st Century Age. *Education Research International*, *2022*(1), 6468995.

National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research. (1979). *The Belmont Report: Ethical principles and guidelines for the protection of human subjects of research*. U.S. Department of Health, Education, and Welfare. https://www.hhs.gov/ohrp/regulations-and-policy/belmont-report/index.html

Rudik, I. V., & Onyshchuk, I. Y. (2024). Artificial inteligence tools for developing educational resources: enhancing digital learning experience for teachers and learners.

Schreiber, L. M., & Valle, B. E. (2013). Social constructivist teaching strategies in the small group classroom. *Small Group Research, 44*(4), 395–411. https://doi.org/10.1177/1046496413488422

Tajik, A. (2025). Exploring the role of AI-driven dynamic writing platforms in improving EFL learners' writing skills and fostering their motivation.

Tripathi, A., & Thakar, S. V. (2024). Ethical use of AI for academic integrity: Preventing plagiarism and cheating. *Ethical Frameworks in Special Education: A Guide for Researchers*, *91*.

Ugwu N. F., Igbinlade, A. S., Ochiaka, R. E., Ezeani, U. D., Okorie, N. C., Opele, J. K., Onayinka, T. S., Iroegbu, O., Onyekwere, O. K., Adams, A. B., Aigbona, P., & Ojobola, F. B. (2024). Clarifying Ethical Dilemmas of Using Artificial Intelligence in Research Writing: A Rapid Review. *Higher Learning Research Communications, 14* (2).DOI:10.18870/hlrc.v142.1549.

Ugwu N. F., Ochiaka, R. E., Asogwa, U. S., Igbinlade, A. S., Sanni, K. T., Onayinka, T. S., Iroegbu, O., Irewole, M. O., Opele, J. K., Oloyede, A. O., Ibenyenwa, N. C., & Olubodun, O. A. (2025). *Comparing the Efficacy of Artificial Intelligence Immersion and Human-Led Workshops for Enhancing Researchers' English Language Skills: A Randomized Control Trial.* Higher Learning Research Communications, *15* (1).DOI:10.18870/hlrc.v15i1.1530.

University of Twente. (2020). *Technology Acceptance Model (TAM).* University of Twente - Communication Theory. https://www.utwente.nl/en/bms/communication-theories/sorted-by-cluster/Information-and-Communication-Technology/Technology-Acceptance-Model/

Yadav, D. S. (2024). Navigating The Landscape of Ai Integration in Education: Opportunities, Challenges, And Ethical Considerations for Harnessing the Potential of Artificial Intelligence (AI) For Teaching and Learning. *BSSS Journal of Computer*, *15*(1), 38-48.

Yildirim, Y., Camci, F., & Aygar, E. (2023). Advancing self-directed learning through artificial intelligence. In *Advancing self-directed learning in higher education* (pp. 146-157). IGI Global.

Zou, X., Su, P., Li, L., & Fu, P. (2023). *AI-generated content tools and students' critical thinking: Insights from a Chinese university*. *IFLA Journal, 50*(2). https://doi.org/10.1177/03400352231214963