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The Trends in the Integration of Artificial Intelligence in English Language Teaching: A Systematic Literature Review

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Abstract: **This systematic literature review examines the integration of artificial intelligence (AI) in English Language Teaching (ELT) from 2020 to 2025. Using the PRISMA framework, the review analysed 24 peer-reviewed studies retrieved from Scopus and Web of Science to address three questions concerning the conceptualization of AI in ELT, its pedagogical roles, and strategies for responsible use. The findings show a shift from narrow technical definitions toward broader pedagogical and critical understandings of AI. Across the reviewed studies, AI supported ELT through personalization, feedback, engagement, assessment, and teacher efficiency. The review also identified key conditions for responsible implementation, including institutional policy, teacher training, data privacy, and the use of AI as a supplement to, rather than a replacement for, human instruction. These findings provide a concise evidence base for educators, curriculum designers, and policymakers working with AI in language education.**

Keywords: **artificial intelligence, English Language Teaching, ELT, systematic review, educational technology, ChatGPT, personalized learning, AI ethics.**

1. INTRODUCTION

1.1 Background and Context

The twenty-first century has witnessed unprecedented technological transformation across all sectors of society, with education experiencing particularly profound changes. The emergence of sophisticated artificial intelligence (AI) systems including machine learning algorithms, natural language processing (NLP) tools, large language models (LLMs), and adaptive learning platforms has created new possibilities for teaching and learning that were scarcely imaginable two decades ago (Baker et al., 2021). These developments have been dramatically accelerated by the global COVID-19 pandemic, which necessitated rapid digital transformation in educational institutions worldwide and normalized technology-mediated learning experiences for millions of students and teachers (Zhang et al., 2022).

Within the field of English Language Teaching (ELT), AI technologies have gained particular traction due to their inherent compatibility with language processing tasks. From intelligent tutoring systems that provide real-time pronunciation feedback to generative AI tools capable of producing authentic text samples, the applications of AI in language education have expanded exponentially since 2020 (Kohnke et al., 2023). The public release of ChatGPT by OpenAI in November 2022 marked a watershed moment, generating widespread discussion among educators regarding both the opportunities and challenges presented by generative AI in writing instruction, assessment practices, and curriculum design (Baidoo-Anu & Owusu Ansah, 2023).

1.2 Research Gap and Problem Statement

Despite the proliferation of AI technologies in educational settings, systematic examination of their integration within specific disciplinary contexts remains limited. While numerous systematic reviews have addressed broad topics such as "AI in education" or "educational technology in language learning," relatively few investigations have focused specifically on the conceptualization, application, and ethical implementation of AI within ELT during the critical period from 2020 to 2025 (Hwang & Chen, 2023). This temporal window is particularly significant as it encompasses the pandemic-driven digital transition, the mainstream emergence of generative AI, and the subsequent pedagogical responses from the ELT community.

Existing reviews often suffer from several limitations: they may include studies predating current AI capabilities, conflate distinct technological categories, or fail to address the nuanced ethical considerations unique to language education contexts (Yan, 2023). Furthermore, the rapid pace of AI development means that findings from even three years ago may not adequately reflect contemporary realities. There is therefore a pressing need for a focused, up-to-date systematic review that synthesizes the latest evidence on AI integration in ELT while addressing definitional clarity, functional roles, and responsible implementation strategies.

1.3 Research Questions

This systematic literature review is guided by the following three research questions:

RQ1: How has artificial intelligence in English Language Teaching been defined and conceptualized in recent years (2020–2025)?

RQ2: What role does artificial intelligence play in supporting English Language Teaching in recent years?

RQ3: What strategies can be implemented to ensure the responsible and ethical use of artificial intelligence in English Language Teaching?

1.4 Purpose and Contribution

The primary purpose of this study is to provide a comprehensive, rigorously conducted systematic review of the literature on AI integration in ELT published between 2020 and 2025. By employing the PRISMA framework, this review aims to offer transparent, replicable methodology that contributes to evidence-based practice in educational technology. The findings will benefit multiple stakeholder groups: classroom practitioners seeking practical guidance on AI tool selection and implementation; curriculum developers integrating AI competencies into teacher preparation programs; policymakers establishing institutional frameworks for educational AI; and researchers identifying gaps requiring further investigation.

2. LITERATURE REVIEW

2.1 Conceptualizing Artificial Intelligence in English Language Teaching

The concept of artificial intelligence in education has expanded over the past decade as technology and pedagogy have evolved. Early definitions focused on AI as systems that perform tasks associated with human intelligence, including problem-solving, pattern recognition, and decision-making (Russell & Norvig, 2021). More recent scholarship places greater emphasis on its educational role, especially its capacity to shape teaching, learning, and outcomes (Holmes et al., 2022). In English Language Teaching, AI includes natural language processing tools that support human-computer interaction (Chen et al., 2022), adaptive systems that personalize instruction based on learner data (Hwang et al., 2020), and generative models that can produce and revise text (Kasneci et al., 2023). This range reflects the diversity of AI applications in ELT, from automated writing evaluation to advanced conversational agents. To explain these uses, Holmes et al. (2022) describe AI as a tool, tutor, or teammate, while Roll and Wylie (2023) frame AI literacy as an essential competence involving practical skills, critical judgment, and ethical awareness. Together, these perspectives show a shift from technical definitions toward broader socio-pedagogical understandings of AI in language learning.

2.2 Tools and Applications of AI in English Language Teaching

The practical manifestation of AI in ELT encompasses a diverse array of tools and applications, each serving distinct pedagogical functions. Table 1 summarizes prominent AI-powered technologies currently utilised in language education settings.

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Table 1: AI Tools and Applications in English Language Teaching

Tool/Application	Type	Primary Functions	Educational Uses
ChatGPT/GPT-4	Generative AI/LLM	Text generation, conversation, explanation, translation	Writing assistance, grammar explanations, practice dialogues, content creation
Grammarly	NLP/AWE	Grammar checking, style improvement, plagiarism detection	Writing feedback, error correction, stylistic development
Duolingo	Adaptive Learning Platform	Gamified lessons, spaced repetition, proficiency tracking	Vocabulary acquisition, grammar practice, skill building
ELSA Speak	Speech Recognition/AI	Pronunciation analysis, accent reduction, fluency scoring	Speaking practice, phonemic accuracy, oral communication
DeepL Translator	Neural Machine Translation	High-quality translation, contextual adaptation	Reading comprehension support, L1-L2 comparison, vocabulary learning
QuillBot	Paraphrasing AI	Text rewriting, summarisation, tone adjustment	Academic writing development, paraphrasing skills, avoiding plagiarism

3. METHODOLOGY

3.1 Research Design

This systematic literature review followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) framework to ensure transparency, rigor, and replicability in the selection and analysis of studies (Page et al., 2021). PRISMA offers a standardized process for documenting search strategies, eligibility criteria, and screening procedures, which helps reduce bias. It was chosen because of its broad acceptance in educational research and its usefulness for producing evidence that can inform policy and practice.

3.2 Search Strategy and Data Sources

The literature search was conducted in Scopus and Web of Science, selected for their broad coverage of peer-reviewed research in education, educational technology, and applied linguistics. The initial search was performed on 15 December 2024 to capture studies published by the end of 2024, followed by additional searches in January 2025 to identify late-indexed articles. A Boolean search string was developed through pilot testing to balance sensitivity and specificity. The final query was: ("artificial intelligence" OR "AI" OR "machine learning" OR "natural language processing" OR "generative AI" OR "large language model" OR "ChatGPT" OR "automated writing evaluation" OR "intelligent tutoring system") AND ("English language teaching" OR "ELT" OR "TESOL" OR "TEFL" OR "EFL" OR "ESL" OR "English as a second language" OR "English as a foreign language" OR "English learning" OR "English education"). This string was applied in both databases with minor syntax adjustments where required.

3.3 Selection Process

The selection process followed the three-phase PRISMA protocol:

Phase 1 Identification: Initial database searches yielded a total of 847 records: 512 from Scopus and 335 from Web of Science. After removing 198 duplicate entries identified through reference management software (EndNote 21) and manual verification, 649 unique records remained for title and abstract screening.

Table 2: Database Search Results and Initial Identification

Database	Total Hits	Duplicates Removed	Unique Records
Scopus	512	89	423
Web of Science	335	109	226
Total	847	198	649

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Table 3: Screening Process and Exclusion Reasons

Screening Stage	Number	Percentage
Records after duplicate removal	649	100%
Records excluded (title/abstract)	187	28.8%
Full-text articles retrieved	462	71.2%
Full-text unavailable	127	19.6%
Full-texts assessed for eligibility	335	51.6%

Phase 3 Inclusion: Full-text articles were assessed against the following inclusion criteria:

(a) Publication date between 1 January 2020 and 31 December 2024;

(b) Published in English language;

(c) Peer-reviewed journal article, conference proceeding, or book chapter;

(d) Primary focus on artificial intelligence technologies in English Language Teaching contexts;

(e) Empirical research, theoretical framework development, or systematic review contributing new knowledge to the field.

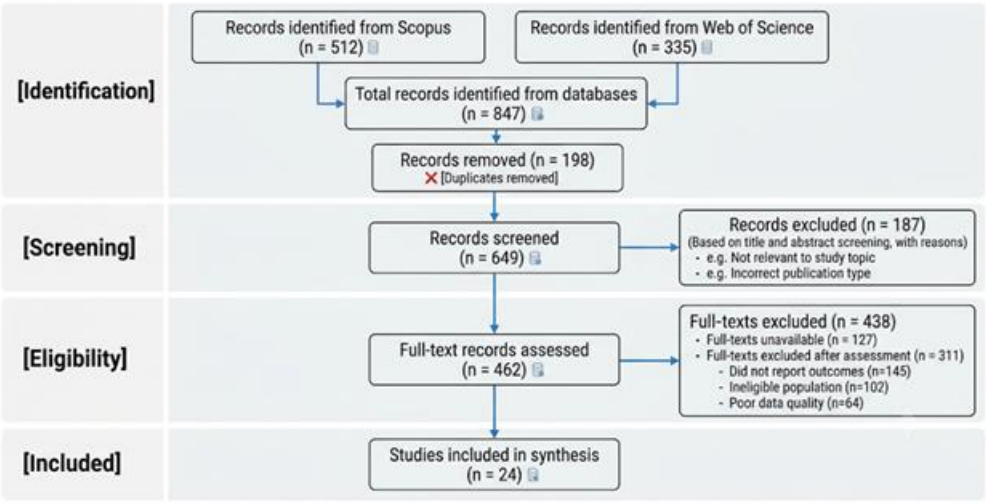

Figure 1: PRISMA Flow Diagram of Study Selection Process

4. RESULTS

RQ1: Conceptualizations of AI in ELT

Across the 24 included studies, conceptualizations of AI in ELT shifted from technical definitions to broader pedagogical and critical framings. Early studies emphasized computational functions such as speech recognition, natural language processing, automated feedback, and intelligent tutoring systems (Chen et al., 2020; García Laborda, 2021; Hwang et al., 2020). From 2022 onward, AI was increasingly framed as a pedagogical mediator within language learning environments, with attention to personalization, teacher support, and interaction (Godwin-Jones, 2022; Kohnke et al., 2023). More recent work also introduced ecological and critical perspectives, including AI literacy and the view that AI should be understood through human agency and context rather than technological capability alone (Holmes et al., 2022; Roll & Wylie, 2023; Yan, 2023).

RQ2: Roles of AI in ELT

The reviewed studies identified eight major roles of AI in ELT. These included reducing teacher workload through automated grading and content generation (Baidoo-Anu & Owusu Ansah, 2023; Kohnke et al., 2023), supporting personalized learning through adaptive systems (Chen et al., 2022; Hwang et al., 2020), and facilitating the development of

reading, writing, listening, and speaking skills through a range of NLP- and speech-based tools (Chen et al., 2020; García Laborda, 2021; Lee, 2023; Wilson et al., 2024; Yan, 2023). AI was also reported to provide immediate feedback, support translation and multilingual learning, promote autonomous learning, increase engagement through gamified and generative content, and strengthen assessment and analytics practices (Burrows et al., 2022; Duffy, 2023; Jimenez-Castellanos et al., 2023; Kasneci et al., 2023; Lin & Chen, 2022; Stoeger et al., 2022). Overall, AI functioned as a multi-purpose support mechanism whose value depended on alignment with instructional goals.

RQ3: Responsible and ethical AI use in ELT

Six main strategies for responsible and ethical AI use were identified. The literature consistently called for pedagogically grounded implementation, clear institutional policies, strong data privacy protections, and sustained teacher training in both functional and critical AI literacy (Baker et al., 2021; Crawford, 2021; Floridi, 2023; Holmes et al., 2022; Moss et al., 2022; Roll & Wylie, 2023). Studies also stressed that AI should supplement rather than replace teachers, particularly in areas requiring human judgment, emotional support, and cultural mediation (Davenport & Kirby, 2022; Godwin-Jones, 2022). In addition, responsible adoption requires adequate infrastructure and explicit attention to digital equity to avoid widening existing educational disparities (Stoeger et al., 2022; van Dijk, 2020).

5. DISCUSSION

5.1 Synthesis of key findings

This review shows that AI in ELT developed across three related directions: broader conceptualization, wider pedagogical use, and stronger ethical awareness. The literature moved from technical definitions toward pedagogical and critical understandings, with AI literacy emerging as a key requirement for effective use (Selwyn, 2019). AI also served multiple functions in ELT, especially in writing support, vocabulary and grammar practice, and assessment, although evidence for speaking and listening remains less robust. At the same time, recent studies showed growing concern with privacy, equity, teacher readiness, and principled implementation (Floridi, 2023).

5.2 Broader literature

These findings are consistent with wider educational technology research. The shift away from tool-centred views supports more contextual and relational understandings of technology in learning (Fenwick, 2014; Selwyn, 2019). Likewise, the expanding role of AI builds on earlier CALL research, although generative AI introduces challenges that older frameworks do not fully explain (Garrett, 2022). The ethical concerns identified in ELT also reflect broader debates on bias, surveillance, and AI governance in education (Crawford, 2021).

5.3 Challenges and limitations

Despite its benefits, AI in ELT raises persistent concerns about accuracy, bias, and limited sensitivity to pragmatic and cultural language use (Bender et al., 2021). Academic integrity is also a major issue, particularly with generative AI, while institutional responses remain uneven and detection tools unreliable (Stoeger et al., 2022). Additional barriers include weak teacher preparation, digital inequality, and the risk of overreliance on AI, which may reduce independent learner performance and teacher judgment (Baidoo-Anu & Owusu Ansah, 2023; Moss et al., 2022; van Dijk, 2020).

5.4 Implications for practice

These findings suggest that AI should be used selectively and pedagogically rather than adopted for its own sake. Teachers need practical and critical AI literacy, curriculum designers should incorporate AI-aware learning and assessment, and institutions should provide clear policies, training, and equitable access. At the policy level, stronger support is needed for data protection, responsible implementation, and inclusive access to AI in education.

6. CONCLUSION

This review synthesized 24 studies on AI in ELT published between 2020 and 2025 and found three broad patterns: expanding conceptualizations, diverse pedagogical applications, and growing ethical concern. AI in ELT is now understood less as a purely technical system and more as a pedagogical resource shaped by human agency, AI literacy, and context. Its main contributions include support for personalization, language-skill development, feedback, assessment, and teacher efficiency, although these benefits depend on purposeful instructional use.

The review also showed that responsible AI integration requires clear pedagogy, institutional policy, teacher preparation, data protection, and attention to digital equity. At the same time, the evidence base remains limited by language and database restrictions, uneven regional representation, and the rapid pace of technological change. Future research should broaden contextual coverage, strengthen empirical and longitudinal evidence, and develop tested ethical frameworks for AI use in ELT. Overall, AI has clear potential in language education, but its value will depend on how educators and institutions guide its use.

REFERENCES

[1] Baidoo-Anu, D., & Owusu Ansah, L. (2023). Education in the era of generative artificial intelligence (AI): Understanding the potential benefits of ChatGPT in promoting teaching and learning. *Journal of AI*, 7(1), 34–41. https://doi.org/10.1016/j.jai.2023.01.002

[2] Baker, R. S., Hwang, G.-J., Chen, G., & Wang, Y. (2021). Conducting educational data mining and learning analytics research using data from intelligent tutoring systems. *Journal of Educational Computing Research*, 59(4), 643–662. https://doi.org/10.1177/0735633120972779

[3] Burrows, R., Gao, M., Madaio, M. A., & O'Rourke, E. (2022). Exploring the generalizability of a data-driven automated writing feedback system. *Proceedings of the 15th International Conference on Educational Data Mining*, 36–47. https://doi.org/10.48550/arXiv.2205.14001

[4] Chen, F., Wang, L., & Su, C.-Y. (2022). Artificial intelligence in second language learning and teaching: A systematic review. *Computer Assisted Language Learning*, 35(7), 1943–1969. https://doi.org/10.1080/09588221.2021.1922223

[5] Chen, X., Xie, H., Zou, D., & Hwang, G.-J. (2020). Application and theory of natural language processing in education: A systematic review. *IEEE Access*, 8, 90080–90104. https://doi.org/10.1109/ACCESS.2020.2993883

[6] Abdelhag, M. E. (2026). A systematic review of machine learning methods for chronic kidney disease diagnosis and prediction (2020–2025). The Saudi Journal of Applied Sciences and Technology, 2(1), 1–8. https://doi.org/10.63908/PRV7RM86

[7] Abdelhag, M. E., Homeida, H. E., Dawod, O. Y., Abdalla, A., Hamdan, A. A., & et al. (2025). AI-powered risk prediction of tuberculosis reactivation in latently infected individuals. Indian Journal of Tuberculosis, 72(Suppl. 3), S55–S60. https://doi.org/10.1016/j.ijtb.2025.11.005

[8] Abdelhag, M. E., Homeida, H. E., Elamin, N. M. H., Badreldin, S. R., Osman, H. A., & Abdalla, A. (2025). AI-driven image segmentation for preoperative planning in endovascular aneurysm repair (EVAR). Vascular and Endovascular Review, 8(13s), 290–301.

[9] Abdelhag, M. E., Mamoun, S., Sarfaraz, M., & Alsheikh, E. A. (2022). Hybrid artificial ecosystem-based optimization with light gradient boosting for intrusion detection. Journal of Northeastern University, 25(04), 1714.

[10] Abdelhag, M. E., Ali, S. E. E., Amin, S. T., & et al. (2022). Machine learning based model for solar radiation prediction. Gongcheng Kexue Yu Jishu/Advanced Engineering Science, 54(02), 2583.

[11] Abdelhag, M. E., & Osman, S. E. F. (2014). SOA for effective data integration of virtual learning environment systems. International Journal of Advanced Research in Computer Science and Software Engineering.

[12] Abdelhag, M. E., & Osman, S. E. F. (2015). SOA for dynamically integrated virtual learning environment systems with cloud based services. International Journal of Computer Applications Technology and Research, 4(2).

[13] Al-Janabi, S., Al-Shourbaji, I., Shojafar, M., & Abdelhag, M. (2017). Mobile cloud computing: Challenges and future research directions. Proceedings of the 2017 10th International Conference on Developments in eSystems Engineering (DeSE), 62–67. https://doi.org/10.1109/DeSE.2017.21

[14] Al-Shourbaji, I., Kachare, P. H., Abualigah, L., Abdelhag, M. E., Elnaim, B., & et al. (2022). A deep batch normalized convolution approach for improving COVID-19 detection from chest X-ray images. Pathogens, 12(1), Article 17. https://doi.org/10.3390/pathogens12010017

[15] AlShourbaji, I., Al-Janabi, S., Wan Ismail, W. K., Alim, S., & Abdelhag, M. (2016). Online social networks in academia: A review of applications and issues. Proceedings of the Second International Engineering Conference on Developments in Civil & Computer Engineering Applications.

[16] Alhameed, M., Jeribi, F., Elnaim, B. M. E., Hossain, M. A., & Abdelhag, M. E. (2023). Pandemic disease detection through wireless communication using infrared image based on deep learning. Mathematical Biosciences and Engineering, 20(1), 1083–1105. https://doi.org/10.3934/mbe.2023050

[17] Amin, S. T., Limkar, S., Abdelhag, M. E., Adam, Y. A., Hamdan, A. A., & et al. (2024). An intelligent IoT framework for personalized healthcare: Integrating machine learning algorithms for real-time patient monitoring and diagnosis. International Journal of Intelligent Systems and Applications in Engineering. https://doi.org/10.18201/ijisae.2024.5027

[18] Amin, S. T., Limkar, S., Abdelhag, M. E., Adam, Y. A., & Abd Alraheem, M. H. O. (2024). Smart IoT-enabled healthcare systems: Real-time anomaly detection and decision support using deep learning models. Journal of Electrical Systems, 20(1s), 318–328.

[19] Hossain, M. A., Osman, M. H., Hamdan, A. A., Abdelhag, M. E., & Kechadi, M. T. (2023). FERLP: Facial emotion recognition based on landmark points using artificial intelligence and machine learning. Proceedings of the 2023 14th International Conference on Computing Communication and Networking Technologies (ICCCNT). https://doi.org/10.1109/ICCCNT56998.2023.10308392

[20] Kaur, M., Goyal, M. K., Yadav, D. P., Patil, S. M., Abdelhag, M. E., & et al. (2026). Exploring facial biometrics in multi-factor authentication systems for secure banking applications. Journal of Discrete Mathematical Sciences and Cryptography, 29(2-A), 656–662. https://doi.org/10.47974/JDMSC-2508

[21] Koam, A. N. A., Ahmad, A., Abdelhag, M. E., & Azeem, M. (2021). Metric and fault-tolerant metric dimension of hollow coronoid. IEEE Access, 9, 81527–81534. https://doi.org/10.1109/ACCESS.2021.3085584

[22] Limkar, S., Abdelhag, M. E., Radwan, R. M., El-Bahkiry, H. S., Moustafa, M. F., & et al. (2024). IoT security in smart healthcare systems: Risk analysis and solutions. Computer Fraud and Security, 2024(7), 13–20.

[23] Limkar, S., Abdelhag, M. E., Hamdan, A. A., Amin, S. T., Sarfaraz, M., & Ahmad, Y. (2024). Blockchain technology for ensuring data integrity in cloud computing. Computer Fraud and Security, 2024(7), 76–83.

[24] Osman, S. E. F., & Abdelhag, M. E. (2016). Performance analysis of cloud based web services for virtual learning environment systems integration. International Journal of Innovative Science, Engineering & Technology, 3, 246.

[25] Radwan, R. M., Limkar, S., Hossain, M. A., Abdelhag, M. E., & et al. (2024). Developing secure and interoperable health information systems using blockchain technology to enhance data privacy, security, and accessibility in healthcare. Panamerican Mathematical Journal, 34(4), 300–315.

[26] Rahman, S. M. A., Armi, N., Abdelhag, M. E., Amin, S. T., & Elshah, H. A. (2023). Rapid and efficient facial landmark identification by light and high resolution network using artificial intelligence. Proceedings of the 2023 International Conference on Radar, Antenna, Microwave, Electronics, and Telecommunications (ICRAMET).

[27] Rahamtalla, B. M., Medani, I. E., Abdelhag, M. E., Eltigani, S. A., Rajan, S. K., Falgy, E., Hassan, N., Fadailu, M., Khudhayr, H., & Abdalla, A. (2025). The AI-powered healthcare ecosystem: Bridging the chasm between technical validation and systemic integration—A systematic review. Future Internet, 17(12), Article 550. https://doi.org/10.3390/fi17120550

[28] Suvarna, N., Shrivastava, G., Bhalke, D. G., Praveen, P., Abdelhag, M. E., & et al. (2026). Enhancing digital communication security with wavelet transforms for efficient data encryption. Journal of Discrete Mathematical Sciences and Cryptography, 29(2-A), 663–670. https://doi.org/10.47974/JDMSC-2509

[29] Talukdar, M. M. H., Hamdan, A. A., Adam, Y. A., Hossain, M. A., Osman, M. H., & et al. (2024). Enhanced approach to predict early stage chronic kidney disease. Proceedings of the 2024 IEEE Asia-Pacific Conference on Geoscience, Electronics and Remote Sensing Technology (AGERS). https://doi.org/10.1109/AGERS65212.2024.10932874

[30] Talukdar, M. M. H., Rhama, E. A., Saeed, O. M., Abdelhag, M. E., & et al. (2024). Impact of artificial intelligence based learning process on students' tendency to involve in independent research at the higher secondary school. International Journal on Recent and Innovation Trends in Computing and Communication, 11(9), 4378–4384. https://doi.org/10.17762/ijritcc.v11i9.9924

[31] Wilson, K., Narayan, B., & Taylor, C. (2024). Academic integrity in the age of generative AI: Student and faculty perspectives. *Assessment & Evaluation in Higher Education*, 49(2), 178–192. https://doi.org/10.1080/02602938.2023.2207845

[32] Yan, X. (2023). Automated writing evaluation in L2 writing classrooms: A meta-analysis. *Journal of Second Language Writing*, 61, 100995. https://doi.org/10.1016/j.jslw.2023.100995

[33] Zhang, W., Wang, Y., Yang, H., & Wang, L. (2022). Technology acceptance and usage behaviour of AI-assisted language learning during COVID-19: A structural equation modelling approach. *Computers & Education*, 186, 104493. https://doi.org/10.1016/j.compedu.2022.104493