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ARTIFICIAL INTELLIGENCE IN ENGLISH AS A SECOND LANGUAGE CURRICULUM DESIGN OPPORTUNITIES PEDAGOGICAL APPLICATIONS CHALLENGES AND A FRAMEWORK FOR INTEGRATION

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ABSTRACT

The fast-paced development of Artificial Intelligence (AI) technology has paved the way for innovative approaches in the field of English as a Second Language (ESL) education, specifically when it comes to curriculum development, instruction planning, learning material preparation, assessment, and individualized learning. The traditional ESL curricula frequently encounter issues associated with learner diversity, varied levels of language proficiency, insufficient instructional resources, and the inability to provide individual feedback. Generative AI, intelligent tutoring systems, automated writing evaluation, adaptive learning platforms, and conversational chatbots can all contribute to addressing these problems using AI technology. Nevertheless, the use of AI in ESL education is not limited to the implementation of various AI technologies. It also involves reconsidering ESL curriculum goals, materials, teaching approaches, assessment methods, and instructor qualifications. This conceptual research paper discusses the use of AI in designing and developing ESL curricula. Based on the latest academic sources concerning AI-supported language education, curriculum development, and technology-mediated learning, the paper analyzes ways in which AI can help in conducting a needs analysis, formulating learning outcomes, developing a syllabus, preparing learning materials, differentiating the content, and assessing students. These challenges include, but not limited to, algorithmic bias, privacy issues, academic

integrity, inequality in technology use and teachers' preparedness for AI integration into classroom practices. The paper puts forward the framework of curriculum design in ESL context using AI technologies involving five stages interconnected with each other: learner needs analysis, curriculum planning, AI-assisted content creation, instruction process and its evaluation. Moreover, the paper claims that the human-centred pedagogically informed way of implementing the AI into curriculum designing should be followed according to which teachers have professional freedom of choosing curricula whereas AI is used as a complementary and adaptive source.

KEYWORDS: Artificial Intelligence, ESL, English Language Curriculum, Generative AI, Curriculum Development, Adaptive Learning, Language Education, Personalized Learning.

1. INTRODUCTION

While the increasing application of AI technologies in language education has been evident in recent times, their application in English as a second language (ESL) curricula tends to remain within individual classroom exercises like grammar correction, translation, vocabulary building, and automated writing feedback.

This may mean that the potential contributions that AI technologies could make towards overall curricula development processes will not be tapped by educational institutions. The design and development of an effective ESL curriculum necessitates a coordinated approach to learning outcomes, subject matter, teaching methodologies, learning materials, evaluation processes, and learner requirements.

However, conceptual models that would guide this process have yet to be developed. The central research problem in this paper pertains to the insufficient integration of AI technology into ESL curriculum design and development.

3. Research Objectives

The objectives of this study are:

1. To investigate the possible uses of AI in designing and developing ESL curriculums.
2. To consider the use of AI in analyzing learner needs and establishing learning outcomes.
3. To explore how AI can contribute to the development of syllabi and development of teaching materials.
4. To discuss the part AI can play in developing personalized and differentiated ESL learning programs.

5. To discuss the pedagogical, ethical, technological, and institutional issues surrounding AI integration.
6. To suggest an effective approach to integrate AI into ESL curriculum development.
7. To make suggestions for teachers, curriculum developers, and educational institutions.

4. Research Questions

The paper attempts to answer the following research questions:

1. How can Artificial Intelligence help in developing and designing the curricula for ESL?
2. How can AI help in designing the learning objectives, syllabus, course materials, and methods of assessment?
3. To what extent can AI assist in personalized and adaptive learning in the ESL curricula?
4. Which pedagogical, ethical, and organizational issues affect the inclusion of AI in the process of designing the ESL curricula?
5. Which approach would facilitate the responsible implementation of AI in the process of designing the ESL curricula?

5. Literature Review

5.1 Artificial Intelligence in Language Education

5.1 Artificial Intelligence in Language Education

The term Artificial Intelligence (AI) denotes computational technologies that are created to carry out operations which usually require human intelligence such as language understanding, pattern recognition, forecasting, problem solving, decision making, and content creation. Over the past few years, the fast advancement of AI has considerably impacted numerous disciplines of education, especially language education, due to the application of technological innovations that bring about new ways of instruction, learning, and curriculum development. The types of AI applications for language education consist of intelligent tutoring systems, automated writing assessment, speech recognition, pronunciation assessment, conversational chatbots, machine translation, adaptive learning, and generative AI. The mentioned technologies offer opportunities for engaging students in the process of practicing English language outside of traditional classrooms. One of the greatest benefits that AI provides to language education is through providing interactive and communicative experiences for the learners. Indeed, conversational AI apps can create situations similar to those in real life, where students are able to have conversations, interviews, give presentations on various subjects and have discussions in different social and professional

environments. In the process of doing this, the students can work on developing their speaking skills, improve vocabulary and sentences structures, and become more confident when communicating in English. Moreover, unlike classroom tasks where the time and number of communication opportunities may be limited due to time constraints, AI apps can provide the learners with more practice in communicating in English. This can be particularly useful for ESL students who may suffer from anxiety, lack of exposure to English language environment or insufficient opportunities to communicate in English. Moreover, AI-based writing tools could be used by the learner for improving his writing skills by means of receiving automatic feedback and analysis. Automated writing tools could detect grammatical mistakes, wrong spellings, inappropriate choice of words, structural problems, and problems with coherence and cohesion. Moreover, they could give some advice concerning the improvement of organization, clarity, and other writing qualities. For instance, the learner could provide a paragraph or an essay to an AI-based writing tool and get the automatic feedback which will help him to improve his work. However, educational effectiveness of the use of such a tool depends on whether the learner is able to comprehend and properly use this feedback. Other than facilitating speaking and writing, AI tools can be used for developing listening, reading skills, vocabulary, and grammar competences. AI technology such as speech recognition and text-to-speech software can introduce different pronunciations to the learners and give them an opportunity to practice listening comprehension. Reading programs using AI can adapt texts to learners' proficiency level, explain unknown vocabulary, ask comprehension questions, and provide examples for language usage. In addition, adaptive learning systems can analyze the performance of the students and suggest other exercises depending on their personal needs. Thus, for example, if learners have problems with verb tenses in English, the system can give them grammar exercises, and for those who have already learned this grammar point, the system can give them other tasks. Moreover, the introduction of generative AI has opened up new opportunities for technology-assisted language instruction. In fact, the ability of generative AI algorithms to generate instructional content such as reading texts, vocabulary, grammar lessons, listening texts, speaking prompts, writing prompts, and test questions can be especially beneficial for the development of an ESL curriculum. In fact, this issue is directly related to the necessity of preparing teaching materials which are tailored to particular language proficiency levels, courses' objectives, and students' needs. Thus, an instructor will be able to create reading texts on the same topic for A2, B1, and B2 language proficiency levels along with corresponding vocabulary exercises and questions for comprehension. This way, it will be possible to tailor instructional content

to particular learners while preserving consistency in terms of topics and learning objectives. Nevertheless, the produced materials should be reviewed by qualified teachers. Another area in which recent studies have focused on is the increasing role of AI in facilitating personalized and adaptive language learning. According to the results of the systematic literature review done by Uygun and Demir (2026), personalized learning, adaptive learning tools, and AI-based feedback applications have emerged as critical developments in EFL and ESL programs. These applications show how AI technologies help in taking language learning practices from a standard format to a personalized experience. In addition, teachers may benefit from information provided by AI-based systems regarding their students' learning process and problems that they face with languages. This information may help the curriculum developers in determining what the gap between intended learning objectives and actual learning outcomes of students is and make decisions accordingly. However, apart from the aforementioned advantages, there are also some challenges in the introduction of AI into language instruction. They include problems connected with the teachers' preparation, technology-related issues, privacy, and the ethical use of AI, according to the literature review provided by Uygun and Demir (2026). First of all, the instructors may be unable to possess sufficient technological knowledge and pedagogical skills required for the effective implementation of AI in their teaching process. Moreover, disparities in access to technological resources, including digital devices, the Internet, and AI software, may arise between different groups of students. Problems concerning the reliability of information generated by AI, privacy of students' personal data, algorithmic bias, academic dishonesty, and overreliance on AI-based feedback need to be addressed. Above all, however, the importance of artificial intelligence from an educational standpoint cannot be measured by how much technological applications have been developed but by how deeply those applications are involved into the course curriculum. The introduction of AI applications to the classroom itself does not guarantee better language learning. Instead, their success hinges on the match between technological applications, learning objectives, instructional content, teaching methods, assessment approaches, and learner needs. For instance, although the implementation of conversational AI can lead to more opportunities for practice of spoken language, its value in the development of communicative skills is limited if speaking tasks are not part of the curriculum and assessed as such.

For this reason, the integration of AI into the curriculum should be viewed as a comprehensive process of developing the curriculum, rather than just an occasional use of software to assist teachers in their classrooms. AI should be considered by curriculists when

designing every stage of the curriculum cycle, from analyzing the needs of learners and defining their language proficiency levels through identifying learning outcomes, selecting and organizing content, creating instructional material, choosing the right instructional strategies, and evaluating learning outcomes. In this respect, AI may act as an auxiliary tool for curriculum specialists and teachers that will help them make data-driven decisions and create differentiated instruction material. In such a situation, the integration of AI technology into ESL education should involve a balance and human-oriented approach where innovations complement but do not substitute the professional expertise of teachers. The latter still have to take care of needs analysis, material assessment, communication issues, and educational decisions relevant for the learning process. In other words, AI should be regarded as a supplementary instrument helping to increase flexibility, support personalization and improve the quality of English language education. Such an approach is necessary because it forms the basis for the consideration of AI technology as a means not only for teaching but also for designing and implementing ESL curricula.

5.2 ESL Curriculum Design and Development

Curriculum development refers to a structured approach entailing the analysis of educational needs, setting up learning goals, selecting and arranging of content, planning of learning activities, and assessment of learning outcomes.

Effective ESL curriculum development involves consideration of the development of the following language skills:

1. Listening comprehension.
2. Speaking and oral communication.
3. Reading comprehension.
4. Writing and academic communication.

In addition, the curriculum should take into account the following aspects of language development: grammar, vocabulary, pronunciation, and functional language. Finally, modern ESL curricula need to foster communicative competence, critical thinking, intercultural competence, digital literacy, and autonomous learning. CEFR is an effective reference tool for defining the learning outcomes and communicative competencies in relation to proficiency. The revised framework includes the following topics: online interaction, mediation, and plurilingual/pluricultural competence (Council of Europe, 2020). AI can help curriculum developers to link learning materials and tasks with proficiency expectations.

However, the task of curriculum developers is to ensure that AI-provided learning outcomes are measurable and relevant for the learners.

5.3 Generative AI and Curriculum Development

Generative AI is an important advancement in the field of educational technology that can be used to generate new textual, visual, and conversational content on the basis of user commands.

In curriculum design for ESL learners, generative AI can be helpful to:

1. Develop reading passages of various proficiency levels.
2. Generate vocabulary lists and exercises based on vocabulary.
3. Provide grammar explanations and exercises.
4. Devise listening texts and conversations.
5. Develop speaking and presentation assignments.
6. Provide writing prompts and model texts.
7. Prepare quizzes and assessment criteria.
8. Adapt existing educational material.

For instance, a curriculum developer can use the generative capabilities of AI to develop three versions of the same reading passage in accordance with the A2, B1, and B2 proficiency levels. Such an exercise can be useful to account for disparities in learner proficiencies while retaining thematic continuity. The generated materials, however, should go through teacher evaluation to guarantee linguistic, cultural, and pedagogical adequacy and relevance.

5.4 Personalized and Adaptive Language Learning

Another important role played by AI in language learning is providing opportunities for personalized learning. Traditional classrooms often face challenges in giving immediate and personalized feedback to all students. AI-based learning programs can provide extra practice and feedback based on the personal results of each learner. For example, a student having trouble with English tenses will get extra grammar drills, whereas another student having good grammar skills will be encouraged to perform more complex writing tasks. The same applies to speech recognition programs and conversation agents that provide extra practice of pronunciation and speaking. However, personalized learning should not be limited to the automation of task recommendation. Personalized learning should take into account learners'

communicative purposes, their educational background, motivation, progress and need for social interaction.

5.5 AI and Language Assessment

Assessment is an important element in curricular planning since it indicates whether the desired learning outcomes have been met. AI is capable of supporting the formative assessment through automated feedback, grammar checking, vocabulary quizzes, pronunciation exercises, and progress tracking. For instance, an automated writing evaluation tool will be able to spot common mistakes in grammar and give recommendations for improvements. Conversational AI can help to practice oral communication skills and get feedback on answers. Moreover, AI may also support teachers in creating test questions, proficiency level rubrics, and personalized tests. Nevertheless, AI-generated assessment data must not be taken as-is. There are some types of writing, speaking, and thinking that cannot be assessed by automated tools only.

6. Theoretical and Pedagogical Foundations

The proposed integration of AI into ESL curriculum design draws on several complementary educational perspectives.

6.1 Constructivist Learning Theory

The Constructivist approach stresses that the learners construct their knowledge through experience, interaction, and reflection. AI-driven tasks can help students achieve this by enabling them to experiment with the language, get feedback, and improve on it. For instance, students may use conversational AI to try out various ways of stating an opinion prior to engaging in classroom discussions. Learning activities must ensure that students reflect on, critique, and apply the information and not simply accept the results of the AI tasks.

6.2 Communicative Language Teaching

The Communicative Language Teaching (CLT) approach is focused on developing learners' proficiency in using language meaningfully. AI may assist in facilitating communicative learning via simulated conversations, role plays, interviews, problem solving exercises, and discussions. This could be achieved by engaging students in communication with AI-powered chatbots while ordering food, conducting job interviews, joining an academic discussion, and so forth. It would enable learners to gain additional practice in language use, but not at the cost of real-life communication.

6.3 Differentiated Instruction

Differentiated instruction acknowledges that not all students have the same abilities, interests, and requirements. Using AI technology in differentiated instruction of ESL will mean that reading, vocabulary, grammar, and writing lessons are all tailored to suit various levels of ability. This could work especially well in classes where students come from many different language backgrounds and have varying degrees of English proficiency.

6.4 Technology-Enhanced Learning

The concept of technology-enhanced learning offers a broader perspective on how to incorporate technology in education. Under this approach, the choice of using any particular AI application would depend on its educational significance rather than technological significance. Consequently, the selection of an AI application should be determined by curriculum objectives, learning outcomes, accessibility, and assessment needs.

7. Applications of AI in ESL Curriculum Design

7.1 AI-Supported Needs Analysis

Needs analysis is one of the crucial phases in developing a curriculum. It helps establish the current language competence, needs, difficulties, and future communication requirements of learners.

An application of artificial intelligence in the phase of need analysis can be realized by using it to assist curriculum developers in analyzing:

- Results of diagnostic tests.
- Vocabulary and grammatical competence.
- Written texts.
- Speaking assessment records.
- Learners' questionnaires and feedback.
- Difficulties in using languages.

For instance, AI-assisted need analysis of results from diagnostic testing can reveal the fact that certain learners have good reading comprehension skills but have problems in speaking fluency and academic vocabulary. This kind of information can help curriculum developers allocate extra instructional time for speaking and vocabularies. However, the analysis through AI should be done on the basis of properly collected and protected learners' data.

7.2 AI in Learning Outcomes Development

The learning outcomes indicate what learners should know and be able to do after having completed the course or lesson.

AI can facilitate curriculum developers in writing down measurable learning outcomes by using action verbs corresponding to various cognitive and language-performance skills.
For instance, here is how AI may facilitate writing learning outcomes for an ESL curriculum:

By the end of the course, students will be able to:

1. Illustrate the main ideas and details from academic listening texts.
2. Conduct themselves effectively during structured discussions about familiar academic subjects.
3. Utilize grammatical structure in speech and writing.
4. Appropriately apply academic vocabulary within the context.
5. Compose paragraphs and brief academic papers.
6. Analyze and improve written texts according to language standards.

AI may facilitate aligning the outcomes with the activities of teaching and testing. Nevertheless, it is important that the final outcomes be reviewed by the curriculum developers.

7.3 AI in Syllabus Design

AI is capable of helping to organize ESL materials based on units, themes, language functions, and levels of proficiency.

Below is an example of how such a syllabus might look for an intermediate ESL course:

Unit	Language focus	Communicative skills	AI-supported activities
1. Academic Communication	Vocabulary and sentence structures	Speaking and listening	Simulated academic discussions
2. Education and Society	Present and past tenses	Reading and writing	Adaptive reading exercises
3. Technology and Innovation	Technical vocabulary	Speaking and reading	AI-generated discussions
4. Academic Writing	Paragraph organization	Writing	Automated formative feedback
5. Professional Communication	Functional language	Speaking and listening	Interview simulations
6. Research and Critical Thinking	Academic vocabulary and argumentation	Reading and writing	Critical evaluation of AI-generated information

AI may be useful in creating alternative syllabi for various learners, including those who need to study general English, academic English, ESP, and even professional English.

7.4 AI in Instructional Materials Development

Instructional materials are necessary for facilitating the accomplishment of curriculum objectives.

AI is able to assist teachers in creating:

1. Reading texts at various levels of proficiency.
2. Listening texts and comprehension questions.
3. Vocabulary and context-related exercises.
4. Grammar practice sheets.
5. Speaking practice tasks.
6. Academic writing tasks.
7. Materials for revision and formative assessments.

For instance, the teacher can give the topic of environmental sustainability to AI and ask it to create a reading text appropriate for B1 level students, along with comprehension questions, vocabulary exercises, and writing assignment. AI can also facilitate adapting authentic materials through vocabulary adaptation, explanation of complicated expressions, and creation of additional tasks for learning. However, it is the responsibility of the teacher to verify the correctness, authenticity, difficulty, and cultural relevance of all created materials.

7.5 AI in Teaching Methodologies

AI can support the implementation of different teaching methodologies within an ESL curriculum.

They include:

Task-Based Language Teaching: The use of AI to create authentic tasks that require problem-solving, exchange of information, and meaningful communication.

Communicative Language Teaching: The creation of chatbot conversations and role-plays.

Project-Based Learning: The help of AI in brainstorming, organization, and presentation of project ideas.

Flipped Learning: The preparation of exercises, vocabulary explanations, and comprehension work before class lessons using AI.

Collaborative Learning: Help from AI in carrying out group projects, including discussion topics and language materials.

The selection of teaching methods should be based on the learning goals and requirements of the students and not the AI software available.

7.6 AI in Assessment and Evaluation

The use of AI is possible in both formative and summative assessment.

Formative assessment includes:

1. Automatic correction of grammatical errors.
2. Progress in vocabulary learning.
3. Practice of pronunciation.
4. Suggestions for writing revision.
5. Quizzes.
6. Making suggestions for individual practice.

For summative assessment, preparation of test items, analysis, and grading rubrics can be done with the help of AI tools. But decisions related to student success still need to be made by humans. At the same time, teachers should make sure that assessments assess language skills of the students and not their skills to create good AI prompts.

8. Proposed AI-Integrated ESL Curriculum Design Framework

From the literature that has been reviewed, together with the discussion of the pedagogical considerations outlined above, a five-step framework for using AI in the development of an ESL curriculum is suggested.

Step 1: Needs Analysis

The first step is to define the learners' proficiency levels, educational background, goals, and communicative needs.

AI may help analyze results of diagnostic tests, writing assignments, questionnaires, and performance indicators.

Expected outcome: A complete picture of the learners and their curriculum needs.

Step 2: Curriculum Planning and Design

Curriculum designers set up learning objectives, choose language content, design syllabus units, and define teaching methods.

AI may facilitate the formulation and alignment of learning objectives, proficiency levels, and curriculum structures.

Expected outcome: A properly designed ESL curriculum meeting the needs of the learners and institution.

Step 3: AI-Based Content Creation

Teachers and curriculum experts use AI to create reading, listening, speaking, writing, vocabulary, and grammar content.

Expected outcome: A set of differentiated instructional materials based on the curriculum.

Stage 4: Implementation

AI-assisted activities are used in class instruction, blended learning, and independent practice. Teachers observe the level of engagement among students, give guidance, and promote authentic human interaction.

Expected result: Interactional, adaptable, and learner-centered instruction.

Stage 5: Assessment

Teachers conduct an assessment of students' progress and evaluate the curriculum.

The AI can help teachers in recognizing performance patterns, problems, and the need for improved instructions.

Expected result: Curriculum modification based on evidence.

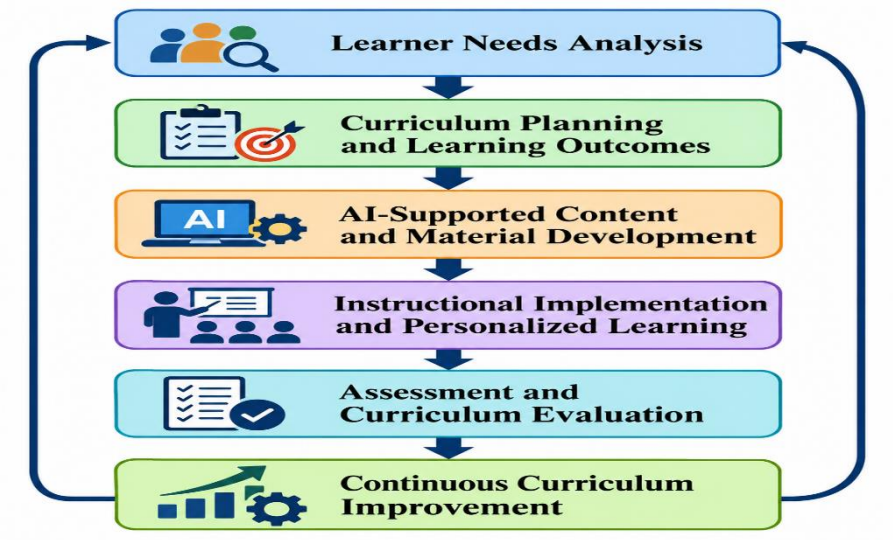

Figure 1. Proposed AI-Integrated ESL Curriculum Design Framework.

The five phases are interlinked rather than linear. Results from assessment can be used for modifications in learning outcomes, instructional materials, and pedagogical approaches.

9. Challenges of Integrating AI into ESL Curriculum Design

Even with its advantages, there are some challenges associated with integrating AI in education.

9.1 Accuracy and Reliability

The content generated by AI could have grammatical errors, misleading information, inappropriate examples, or fabricated content.

Such a challenge arises especially when students depend on content generated by AI systems without seeking help from teachers or educational sources.

Recommendation: All content developed using AI systems must be approved by teachers before being used in the course.

9.2 Teacher Preparedness and Training

For successful integration of AI, teachers must first learn about the abilities and limits of AI technologies.

They need training in designing prompts, AI-assisted content generation, digital assessments, data security, and ethical application of AI.

According to UNESCO's AI Competency Framework for Teachers, there are five key areas of competencies: Human Centred Mindset, Ethics of AI, AI Foundations and Applications, AI Pedagogy, and AI for Professional Learning (Miao & Cukurova, 2024).

9.3 Academic Integrity and Learner Dependence

Students may become too reliant on AI when doing writing tasks, exercise completion, translations, and preparation for presentations. There might be a decrease in possibilities of developing the ability to produce language independently and think critically. Recommendation: The curriculum for ESL should include lessons on ethical AI usage and encourage students to show their language skills through monitored activities, reflection, explanation, and process-based evaluation.

9.4 Data Privacy and Ethics

AI tools can gather personal data, performance data, as well as written and verbal submissions made by students. Educators should take into account such aspects as data security, informed consent, transparency, and the responsible usage of student data.

9.5 Digital Divide

All students do not have the same level of access to internet, technology, and paid AI applications. As a result, the curriculum based on AI needs to provide additional sources for learning and ensure students will not be discriminated against because of technological limitations.

9.6 Cultural and Linguistic Bias

The content created using AI may not reflect the cultural background and context of education of learners. Curriculum designers need to assess cultural relevance of examples, topics, readings, and communicative activities.

10. Discussion

The use of AI in designing the ESL curriculum design opens up great chances to rethink the process of planning, implementing, and evaluating language programs. According to the literature review, there are many opportunities for applying AI in language learning via feedback, interactive exercises, content creation, and adaptive learning. Nevertheless, there are not enough studies on how to apply AI for language program design. This is a very significant difference because the practice of using chatbots to train students' speaking or automatic checking of grammar mistakes does not imply the use of AI in curriculum design. The use of AI in curriculum design means the presence of a certain connection between AI applications and curriculum components (needs analysis, goals, content organization, instructional approaches, assessment, and evaluation). The developed framework helps fill this gap since it implies the application of AI within the entire process of curriculum development. It is also crucial to highlight the fact that AI does not replace ESL teachers. Instead, teachers will be assisted in curriculum design, instruction, assessment, and advising. Teachers play a crucial role in assessing students' needs, interpreting the results of assessments, choosing culturally sensitive materials, and providing meaningful learning. Moreover, the incorporation of AI should follow certain pedagogical principles. The technology itself should work for achieving educational purposes and not vice versa. In other words, although an AI program can create numerous grammar tasks, they will be educational only if they tackle particular problems of learners. Thus, the most suitable model is a human-centered one in which AI acts as an assistant to decision-making in the curriculum while teachers have their professional and moral responsibility.

11. Recommendations

As discussed above, the following recommendations are presented based on the results of the review:

1. AI Integration Policies: There is a need for educational institutions to have policies about AI integration in ESL curriculum development and classroom practice.

2. Professional Development of Teachers: Continuous training is recommended to increase teachers' AI literacy, prompt designing skills, material evaluation skills, and awareness about responsible AI implementation.
3. Alignment with Curriculum Outcomes: The use of AI-generated materials and prompts should be done in alignment with learning outcomes and proficiency scales.
4. ESL Differentiation: ESL curricula should take advantage of AI integration for addressing individual learners' different levels of language proficiency.
5. Balanced Assessment: Institutions are recommended to implement AI-based formative feedback together with traditional assessment strategies including written test papers and oral exams.
6. Ethical and Responsible AI Implementation: The concepts of data privacy, transparency, academic integrity, accessibility, and cultural sensitivity should be embedded in institutional AI policies.
7. Curriculum Evaluation: AI integration in ESL curriculum should be assessed by its impacts on students' achievement, teacher feedback, and learners' engagement in developing four language skills.
8. More Empirical Research: Future research should examine the effect of AI-integrated ESL curricula.

12. CONCLUSION

AI can play an important role in the creation of ESL curricula which will be flexible, adaptive, and learner-centred. It is applicable not only for practice purposes and automated feedback. The uses of AI also include needs analysis, curriculum planning, syllabus design, material preparation, differentiated learning, assessment, and curriculum evaluation. Nevertheless, the effective integration of AI does not require technological use alone. There has to be a systematic pedagogical strategy linking the use of AI to curriculum goals, learners' needs, instruction, and assessment. The suggested ESL curriculum design framework involves five stages in the process of incorporating the uses of AI into ESL curricula. It suggests the use of AI as a tool for supporting the curriculum development process rather than replacing the work of the teacher. Thus, the AI use should not take the place of teachers' expertise and the human element which is crucial for language learning. On the contrary, AI should be used to help teachers design learning processes and improve their communicative competence.

REFERENCES

1. Council of Europe. (2020). *Common European framework of reference for languages: Learning, teaching, assessment—Companion volume*. Council of Europe Publishing. https://www.coe.int/en/web/common-european-framework-reference-languages
2. Li, B., Tan, Y. L., Wang, C., & Lowell, V. (2025). Two years of innovation: A systematic review of empirical generative AI research in language learning and teaching. *Computers and Education: Artificial Intelligence*. https://doi.org/10.1016/j.caeai.2025.100445
3. Miao, F., & Cukurova, M. (2024). *AI competency framework for teachers*. UNESCO. https://www.unesco.org/en/articles/ai-competency-framework-teachers
4. Miao, F., & Holmes, W. (2023). *Guidance for generative AI in education and research*. UNESCO. https://www.unesco.org/en/articles/guidance-generative-ai-education-and-research
5. Qiao, S., Gu, M. M., & Lu, C. (2025). Artificial intelligence for language learning: A systematic review of its design, theoretical foundations, implementation, and impact. *International Journal of Applied Linguistics*. https://doi.org/10.1111/ijal.70034
6. Uygun, E., & Demir, B. (2026). A PRISMA-based systematic review of artificial intelligence in English as a foreign and second language education (2023–2025). *Discover Education, 5*, Article 478. https://doi.org/10.1007/s44217-026-01504-y