THE ROLE OF ARTIFICIAL INTELLIGENCE (AI) IN IMPROVING FOREIGN LANGUAGE PROFICIENCY FOR TEACHERS IN INTERNATIONAL CURRICULUM-BASED SCHOOLS

Ary Maulana Muaripin, Dedi Sulaeman, Nisa Lailatul Qodriyah
Universitas Islam Negeri (UIN) Sunan Gunung Djati Bandung, Indonesia
muaripin95@gmail.com, dedi458@uinsgd.ac.id, nisalailatulqodriyah@gmail.com

Abstract.

The aim of this writing is to help teachers to have good foreign language skills to support effective teaching and learning in schools. Especially for schools that have just implemented the international curriculum. There are two main reasons for this writing. Firstly, foreign language proficiency is a key element in the international curriculum. Automatically, teachers who are accustomed to teaching in Bahasa Indonesia, must have foreign language skills, such as English. Secondly, there is an increasing demand for global education, so teachers in international curriculum-based schools must continue to develop their language skills to meet the needs of diverse students. However, improving foreign language skills often face challenges such as time constraints, access to adequate resources, and difficulties in finding effective learning methods. Artificial Intelligence (AI) offers an innovative solution to these challenges. AI has the potential to provide a more personalized, efficient, and flexible approach to language learning. AI-based tools such as virtual assistants, conversational chatbots, and adaptive learning platforms can help teachers improve their foreign language skills in a way that suits their individual learning needs and preferences.

Keywords: Artificial Intelligence, Foreign Language Learning, Teachers, Education, International Curriculum

INTRODUCTION

Foreign language proficiency is a key element in the international curriculum which requires teachers to have good foreign language skills to support effective teaching and learning. This is especially true for schools that are new to the international curriculum. Automatically, teachers who are used to teaching in Bahasa Indonesia must have foreign language skills, such as English. Coupled with the increasing demands of global education, teachers in the international curriculum-based schools need to continue developing their foreign language skills to meet diverse students' needs. However, improving foreign language skills often faces challenges such as time constraints, access to inadequate resources, and difficulties finding effective learning methods.

Artificial Intelligence (AI) offers an innovative solution to these challenges. It can potentially provide a more personalized, efficient, and flexible approach to language learning. In terminology, AI is a broad term that describes a collection of technologies that can solve problems and perform tasks to achieve defined objectives without explicit human guidance (Schmidt & Strassner, 2022). Its tool system monitors everything including language recognition, recording analysis, practice, and finally proficiency. Therefore, teachers in the international curriculum can take the benefits of the AI

implication for improving their language proficiency since AI not only facilitates language acquisition, but also facilitates the potential position of language education, it more accessible and engaging for diverse learners.

Practically, Artificial Intelligence technology is developed based on necessity, especially in language learning needs (M. Vijayakumar & G. Chellapandiyan, 2024). Language skills depend on four essential elements: listening, speaking, reading, and writing. Considering teachers' needs, they can select any AI tools for improving their target language learning skills. This journal discusses how AI-based tools such as virtual assistants, conversational Chatbots, and adaptive learning platforms can help teachers improve their language skills to suit each individual's needs and learning preferences.

LITERATURE REVIEW

In recent years, AI technology has greatly changed the way of learning foreign languages. The combination of AI and language education helps to overcome the limits of traditional teaching and offers learners a more effective way to study (Yang Aijun, 2024). Moreover, AI tools like language learning apps have common goals and functions as below.

1.1. AI-based Language Learning Apps

AI-based language learning apps are digital applications that are designed to help users learn and improve their language skills. Apps and products designed for self-learners such as Duolingo, Babbel, and Rosetta Stone offer interactive and engaging learning methods. These apps use AI algorithms to analyze users' performance and adjust learning content based on their needs. However, there are several differences between these apps based on their approaches in guiding English language acquisition, features, and materials supplies.

Duolingo services English language acquisition through a series of activities in a fun way. It guides the users to learn implicitly while using the application (Perez, 2020). The frequent approach set by Duolingo is game-like activities in some skills, such as translating sentences, matching vocabulary, dictation, filling in the blanks, etc. Users especially teachers in international curriculum schools can utilize this application to improve their basic skills, especially in enriching their vocabularies. Moreover, not only to enrich their language but also to adapt the structure or system of game-like activities into classroom learning.

Another AI language learning application is Rosetta Stone. It has a more immersive approach to foster learning more effectively. For instance, Rosetta Stone software introduces language without translation. It guides the users to learn vocabulary, phrases and direct sentences connected to pictures, texts, and audio as the media. It starts easy and gets harder as the learner's proficiency grows (Hanif, 2014). It means that Rosetta Stone naturally guides language learners to the context using repetitive exercises or translations. Furthermore, this method relates to teachers in international curricula who guide students in familiarizing themselves with English in every subject. Additionally, Rosetta Stone is equipped with a "TruAccent" system that supports the users in correcting their pronunciation (Yuliani, 2023). When the users speak, it responds immediately by listing corrective feedback of their speaking. Therefore, teachers can check their speaking before teaching. It's especially useful for teachers who are not native speakers, it helps them build confidence in their language skills and ensures that they speak clearly and correctly.

In addition to the two applications above, the Babbel application can help teachers effectively prepare for teaching. It provides short lessons of roughly 10 – 15 minutes each (Kessler et al., 2023).

Experts in language pedagogy design this system by considering learners' target language. It systematically guides the users through a series of determined language targets. This makes it especially useful for teachers in international curriculum schools, as they can quickly review language concepts before teaching, ensuring they are familiar with the vocabulary and grammar needed for their lessons.

1.2. Conversational Chatbot for Communication Practice

AI-based conversational Chatbots, such as Kuki or Replika, can be used by teachers to practice speaking and listening skills in foreign languages. These Chatbots can simulate everyday conversations with users, allowing teachers to practice dialog in realistic situations. In addition, AI Chatbots can provide immediate feedback on grammar, vocabulary, and pronunciation, thus helping teachers improve their overall communication skills.

Practically, language acquisition happens through interaction with peers, experts, and other professionals (Çakiroglu, 2018). It is crucial because it gives learners comprehensible input, feedback on their output, and the chance to modify output. Therefore, the Kuki or Replika application can be used as a teacher partner in comprehending the meaning and style of diverse students learning. Moreover, since students have unique language proficiency, this application can help teachers understand by adapting how lessons are delivered.

Furthermore, the use of AI chatbots empowers L2 learners to gain affective factors (Çakmak, 2022). Especially for teachers who have no English background, these tools can be utilized to help them relate language to any subject by pair discussion, allowing them to practice language skills in a supportive environment. Gradually, these will help them reduce their anxiety in speaking in front of students.

1.3. Virtual Assistants and Adaptive Learning Platform

AI-based virtual assistants, such as Google Assistant or Alexa, can be used to help teachers improve pronunciation and language comprehension. Meanwhile, adaptive learning platforms such as Coursera or EdX use AI to create a curriculum that is dynamic and responsive to individual needs, offering learning modules tailored to each teacher's skill level and learning style.

Moreover, virtual assistants can help teachers answer students' questions immediately, it offer sources and references of the appropriate learning style (Lalani & Li, 2020). This helps teachers focus on guiding students and ensure that they received the appropriate language level to reach their potential.

1.4. Benefits of Using AI for Teachers in International Curriculum-Based Schools

AI technology empowers learners in producing their learning objectives both inside and outside the classroom (Dugošija, 2024). It Offers numerous benefits for teachers, especially in international curricula. Personalized learning according to teachers' necessities also makes teaching and learning easier (Wahyuni, 2024). It allows teachers to explore how English integrated into any subject and how engaging students in any subject by the English language. Materials and exercises are tailored to each teacher's learning ability and pace. This goes a long way in overcoming the challenges faced by teachers with different backgrounds and language proficiency levels.

Practically, time efficiency is the most important part of language learning nowadays. Since international curriculum teachers do not have much time to learn English from the basics, AI tools allow teachers to learn at flexible times and place and according to their schedules. It can provide

micro-learning, where teachers can learn in short but effective sessions. Additionally, In part to flexibility, instant and continuous feedback also help teachers to correct their mistakes. Teachers can modify their output or their language production by the correct one based on the feedback (Saraswati et al., 2023). For instance, if a teacher mispronounces a word during a lesson, AI tools can instantly provide the correct pronunciation, it builds the capability and confidence of the teacher while teaching.

1.5. Challenges in Using AI for Language Learning

Along with the benefits offered, the use of AI in foreign language learning also faces some challenges. One of the major challenges is high dependence on technology. It may reduce human interaction and decrease the social and communication skills needed for language learning. While some AI tools offer live conversation practice, most provide a self-guided learning experience without real human interaction (Dugošija, 2024). Therefore, teachers should combine AI with cooperative communication in classroom activities such as group discussions guided by them, giving feedback immediately.

To not depend on AI technology, teachers may utilize AI as a partner not a replacement for their role. They can set time limits when they use AI technology and when they have to combine between it and traditional learning.

1.5.1. Data Privacy and Security Issues

The use of AI tools often involves users' data, such as voice recordings or study habits. This can raise privacy and security issues that schools and app developers need to be aware of. In data collection and consent, schools and app developers must clearly inform users (teachers) about what data is being collected, how it will be used, and who will have access to it (Gautam, 2024). Users should give explicit consent, particularly when handling sensitive data, such as voice recordings or personal learning behaviors. Besides the need for data minimization because AI tools should only collect the minimum amount of data necessary for their intended purpose. Collecting excessive data can create unnecessary security risks. All sensitive data, whether in transit or at rest, should be encrypted to prevent unauthorized access. Developers should use secure cloud services and implement measures to prevent data breaches. Regular security audits can help ensure that the systems remain secure over time.

Schools and app developers should have clear data retention policies, specifying how long user data will be kept and under what circumstances it will be deleted. Users should have the ability to request the deletion of their data. App developers should avoid sharing data with third parties unless absolutely necessary and ensure that any third-party partners adhere to strict privacy and security standards. If data must be shared, it should be anonymized to protect the identity of individual users. Addressing these concerns can help create a safer environment for teachers while making the most of AI technology.

1.5.2. Limitations of AI in Understanding Language Nuances

Another problem faced by AI users is that the system has trouble understanding human aims through language details like word or idiom selection, expressions, and regional accents of the diverse humans (Rebolledo Font de la Vall & González Araya, 2023). While AI can provide feedback on grammar or pronunciation errors, it still has limitations in understanding the more complex nuances of language, culture and social context, which can affect the effectiveness of language learning.

Language is deeply intertwined with culture. Many AI tools struggle to interpret and respond to cultural references, idioms, or sayings that don't have direct translations or meanings. For instance, a phrase like "break a leg" in English could be taken literally by AI, even though it's a cultural expression meaning "good luck" (Faster Capital, 2024). Understanding the appropriateness of certain phrases or tone in different social settings can be complex. AI may fail to distinguish between formal and informal language, or it may not recognize when certain expressions are inappropriate in specific cultural contexts.

AI often struggles with idiomatic expressions that don't translate word-for-word across languages. For example, phrases like "raining cats and dogs" might be flagged incorrectly or misunderstood because AI relies on literal translations rather than context. Recognizing metaphors, sarcasm, or other forms of figurative speech is another challenge. These elements of language rely heavily on context and tone, which are difficult for AI to grasp.

AI lacks the ability to accurately detect emotional tone, intention, or subtleties like politeness and indirectness, which are crucial for effective communication in any language. For example, indirect requests or politeness strategies vary across cultures, and AI may misinterpret or fail to recognize these nuanced cues. Humor often depends on cultural references, puns, or subtle cues that AI tools are generally not equipped to understand. This can lead to poor communication in learning environments where humor or irony is part of the conversation.

While AI can provide standardized feedback on pronunciation, it often has difficulty recognizing regional accents or dialects. This can create a bias towards certain "standard" forms of a language, marginalizing learners who speak with regional variations. AI models may not be updated frequently enough to recognize evolving slang or new forms of informal speech that are widely used in conversation. This limits their ability to prepare for the real-world.

1.5.3. A High Initial Cost

AI technology adoption and training to develop digital skills among teachers require high initial costs. In addition, privacy and data security issues also need to be seriously considered. Adopting AI requires investment in advanced technology, including hardware (computers, servers, etc.), software, and cloud services. These costs can be a major barrier for schools, especially those with limited budgets. Many AI solutions need to be tailored to fit the specific needs of educational curricula, which adds to the costs. This involves engaging developers, purchasing licenses, and potentially building custom AI models. Beyond the initial investment, schools must factor in the costs of maintaining, updating, and scaling AI systems as a user needs to grow, which can further stretch educational budgets.

Teachers must be trained to effectively integrate AI into their teaching practices. This requires training programs, workshops, and ongoing professional development, all of which can be time-consuming and costly. Teachers may not only need training on how to use AI tools but also on how to interpret the data these tools provide. Building confidence in using technology is crucial for AI to be successfully integrated into classrooms. Some teachers may be hesitant to adopt AI due to concerns about job displacement or the belief that technology cannot match the human element of teaching. Addressing these concerns requires fostering a positive attitude towards AI as a complementary tool rather than a replacement (Reilly, 2024).

METHOD

The method used in this writing is a literature study. This approach involves studying various references and similar research results which aim to obtain a theoretical basis related to the problem to

be studied (Sarwono, 2006). Data collection in literature studies is carried out through a review of books, journals, articles, and various other sources relevant to the problem to be solved (Nazir, 2014). In its implementation, this writing encourages researchers to conduct library research through a series of steps such as reading, recording, and processing the data obtained. The data collected is then presented descriptively. Therefore, this research is included in the qualitative approach because the results are presented descriptively based on literature searches. According to (Sugiyono, 2017), literature study can also be considered as a theoretical study that refers to scientific literature relevant to the culture, values, and norms that apply in the social context under study.

The data collection technique used was documentation, namely by collecting information from various sources such as notes, books, articles, journals, papers, and other documents. The data analysis technique applied is content analysis, which aims to produce valid and testable conclusions in accordance with the context (Krippendorf, 1991). This analysis process includes steps such as selecting, comparing, integrating, and sorting out various understandings until relevant information is obtained. The main sources of data in this writing are scientific papers most related to Artificial Intelligence (AI), including articles, journals, books, and other online resources. The literature was used as a reference or inspiration to build ideas and form thoughts in the preparation of this writing.

DISCUSSION AND RESULTS

Based on the data and analysis presented, several key findings emerge regarding the use of Artificial Intelligence (AI) to enhance foreign language proficiency among teachers, especially in international curriculum-based schools. These findings highlight both the opportunities and challenges presented by AI in addressing language learning needs.

1.6. Key Opportunities and Benefits

1.6.1. Personalized Learning

AI-powered tools such as Duolingo, Rosetta Stone, and Babbel offer personalized learning experiences tailored to individual teachers' language proficiency levels and needs. These tools provide adaptive learning pathways, enabling teachers to focus on specific areas such as vocabulary, grammar, pronunciation, or conversational skills. Such as, Rosetta Stone's immersive approach and TruAccent system provide pronunciation correction and contextual language learning, which are particularly valuable for teachers aiming to improve their speaking confidence.

Figure 1 The Rosetta Stone App

Source: Google

1.6.2. Time Efficiency and Flexibility

AI tools allow teachers to learn at their convenience, overcoming the constraints of traditional classroom-based language learning. Short, focused lessons in apps like Babbel are

particularly effective for busy teachers. Such as, teachers can use 10–15 minute Babbel lessons during breaks to quickly enhance specific language concepts relevant to their teaching context.

Figure 2 The Babbel App

1.6.3. Practical Communication Skills

Conversational Chatbots like Kuki and Replika simulate real-life dialogues, enabling teachers to practice speaking and listening in a low-pressure environment. Immediate feedback on grammar and vocabulary helps teachers refine their communication skills. Such as, teachers can engage in role-playing scenarios with Chatbots to prepare for classroom interactions, improving their fluency and reducing anxiety.

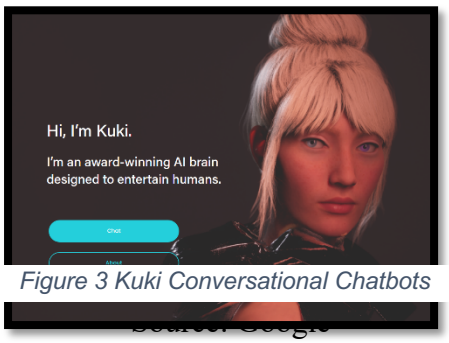

Figure 3 Kuki Conversational Chatbots

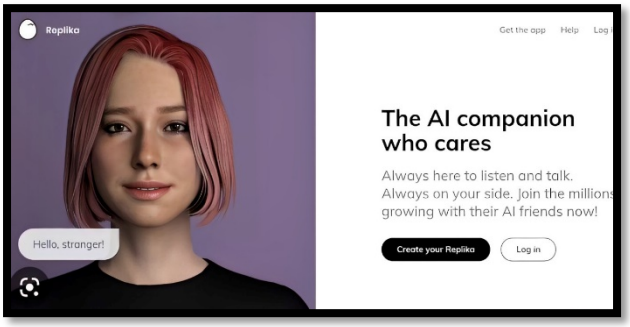

Figure 4 Replika Conversational Chatbots

Source: Google

1.6.4. Enhanced Pronunciation and Comprehension

Virtual assistants like and adaptive platforms such as Coursera provide dynamic support in pronunciation, listening, and comprehension. These tools ensure that teachers receive instant corrections and relevant resources, making language acquisition more effective.

Figure 5 Google Virtual Assistants

Source: Google

Figure 6 Coursera Virtual Assistants

Source: Google

1.6.5. Support for Pedagogical Integration

AI tools can assist teachers in integrating English into subject-specific content, making lessons more engaging and accessible for students. By exploring AI-based applications, teachers can adopt new teaching methodologies inspired by gamified learning or immersive practices.

1.7. Challenges and Limitations

1.7.1. Dependence on Technology

Over-reliance on AI tools risks reducing human interaction, which is essential for language learning. Teachers should balance AI usage with traditional methods, such as group discussions or peer feedback, to maintain a holistic learning experience. As a recommendation, combine AI-assisted learning with in-person classroom activities to foster collaborative and interactive learning.

1.7.2. Data Privacy and Security

AI tools often collect sensitive user data, raising concerns about privacy and security. Schools must establish clear policies on data collection, usage, and retention to protect users' information. Such as, encrypting sensitive data and conducting regular audits can mitigate risks associated with data breaches.

1.7.3. Cultural and Linguistic Nuances

AI systems struggle to grasp idiomatic expressions, cultural references, and regional accents, limiting their effectiveness in teaching nuanced aspects of language. As a recommendation, teachers should supplement AI-based learning with culturally relevant materials and real-life language practice to bridge this gap.

1.7.4. High Initial Costs

Implementing AI technology requires significant investment in infrastructure, training, and ongoing maintenance, which may be prohibitive for some schools. As a recommendation, schools can explore partnerships with educational technology providers or seek funding from governmental or non-profit organizations to reduce financial barriers.

1.8. Implications for Language Education

The integration of AI in language learning represents a transformative shift in education. For teachers in international curriculum-based schools, AI tools provide an innovative approach to overcome language barriers and enhance their teaching capabilities. However, to maximize the benefits, it is crucial to address the challenges through strategic planning, training, and ethical considerations. AI should be viewed as a complementary tool that enhances, rather than replaces, traditional teaching methods.

CONCLUSION

The integration of foreign language proficiency is critical for teachers in international curriculum-based schools, especially for those transitioning from teaching in Bahasa Indonesia. However, language acquisition faces challenges such as time constraints, limited resources, and ineffective learning methods. Artificial Intelligence (AI) offers a transformative solution by providing personalized, efficient, and flexible tools that enhance teachers' listening, speaking, reading, and writing skills. Applications such as Duolingo, Rosetta Stone, Babbel, and conversational chatbots help teachers improve language proficiency and build confidence, while adaptive learning platforms and virtual assistants offer tailored resources and support.

AI also benefits teachers by providing time-efficient learning, continuous feedback, and tailored content, which aligns with their diverse needs. However, there are challenges, including reduced human interaction, privacy concerns, AI's inability to fully grasp language nuances, and the high initial costs of adoption. To mitigate these issues, AI should be used as a complementary tool rather than a replacement, combining traditional learning methods with AI-driven support to ensure a balanced, effective language learning experience for educators.

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