# JOURNAL OF RESEARCH STUDIES IN ENGLISH LANGUAGE TEACHING AND LEARNING



#### This article is published by <u>Pierre Online Publications</u> Ltd, a UK publishing house



Journal of

Research Studies in English Language Teaching and Learning

ISSN (online): 2977-0394

PIERRE ONLINI

#### **KEYWORDS**

Artificial intelligence, student engagement, English language learning, teacher perspectives, personalised learning

### To cite this article in APA 7<sup>th</sup> style:

Zainuddin, M. (2024). Teachers' perceptions of AI tools in enhancing student engagement for English language learning. *Research Studies in English Language Teaching and Learning*, 2(6), 367–380. <u>https://doi.org/10.62583/rseltl.v2i6.64</u>

For more citation styles, please visit: https://rseltl.pierreonline.uk/

# Teachers' Perceptions of AI Tools in Enhancing Student Engagement for English Language Learning

Mohammad Zanzon Zainuddin<sup>1</sup>

<sup>1</sup>Department of English, University of Malaya, Kuala Lumpur, Malaysia

#### Abstract

This work seeks to explore the effectiveness of artificial intelligence (AI) tools in improving engagement with English language learning through the perception of teachers (Luckin et al., 2016). The study identifies four key dimensions associated with the use of AI: a motivational tool, personalised learning, practical limitations, and positioning as a supplementary rather than a replacement teaching resource. Teachers identified that AI can provide an interactive gamified experience and real-time feedback, which motivates the students and enables personalised learning. Yet, disparity in technological access, over-reliance on AI, and the need for serious professional development were also highlighted. The findings suggest that with AI tools greatly enhancing engagement, their integration should be carefully balanced with traditional instructional methods to meet holistic learning (Adolphs et al., 2018). The study has key implications for policymakers and educators on bridgeable digital divides, targeted teacher training, and incentivising sustainable, balanced adoption of AI. This study fills in the gaps in current literature by incorporating teacher insights into how AI can be used to effectively engage diverse learners in English language contexts while addressing pragmatic and pedagogic challenges. These findings will inform future development initiatives of AI-driven educational strategies.





## Introduction

AI has now integrated into educational pedagogy, fundamentally revolutionising the way teaching and learning are carried out, especially within English language education (Liang et al., 2021). Regarding this, teachers stand at the heart of the educational process and thus play a prime role in interpreting validity and potential for deeper involvement of students through the application of AI tools (Luckin et al., 2016). The research explores the teachers' views on the efficiency of AI in inspiring students to delve non-stop into the learning of the English language amidst growth in literature concerning the need for assessment of the transformative potentials of these technologies within educational contexts (Baker & Smith, 2019).

Generally speaking, engagement in language learning may be considered a central issue for motivating students to participate and persist in challenging tasks, thus yielding meaningful results from learning (Adolphs et al., 2018). However, engagement in English as a Foreign Language (EFL) classrooms has the tendency to become particularly problematic in increasingly diverse, technology-rich educational contexts (Yang & Kyun, 2022). Traditional pedagogies often do little to inspire learners who are becoming increasingly accustomed to interactive, personalised digital experiences (Pane et al., 2017). These are promising solutions to these challenges presented by the emergence of AI technologies that come equipped with tools catered to individual learner needs, immediate feedback, and other appealing features such as gamification and interactive interfaces (Hamari et al., 2014). Teachers, who are facilitators and observers of classroom dynamics, are better positioned to comment on the contribution of these tools in resolving the problems of student engagement (Tai et al., 2022).

AI in education runs the gamut from intelligent tutoring systems to speech recognition software to adaptive learning platforms (Luckin et al., 2016). Using algorithms and sometimes machine learning, these tools simulate human intelligence by customising or supporting autonomous learning experiences (Graham, 2006). Indeed, this has led to the development of language learning tools that support English language learners with pronunciation practice, vocabulary building, grammar correction, and even conversational simulations (Guo et al., 2022). While these innovations promise to make learning both more efficient and enjoyable, their actual retrofitting into school classrooms remains to be seen in terms of how they are implemented and perceived by educators themselves (Pokrivčáková, 2019). These perceptions depend on the functionality of the AI, its access, and the overall educational context in which it is used (van Deursen & van Dijk, 2019). Basically, with AI, engagement for students can be fostered through interaction and personalisation of learning (Lotze, 2018). For example, gamification features in AI tools make learning tasks more engaging, hence persistence and investment in studies (Hamari et al., 2014). This is because, through some teachers, real-time feedback on performance provided by AI systems helps students realise errors and make timely corrections, therefore reinforcing positive learning habits



and fostering a motivation of achievement (Tai et al., 2022). These elements can congregate to promote maintained engagement, especially in that category of students who easily lose concentration during standard lessons (Melchor-Couto, 2017).

AI into learning the English language also has its drawbacks. Teachers still complain that immediate dependence on AI would lessen critical thinking and group interaction among their students (Luckin et al., 2016). The novelty element of using AI tools is exciting at first but eventually wears off, thus often needing other reinforcement strategies to sustain effectiveness (Baker & Smith, 2019). In addition, barriers such as limits to technology and a lack of training among educators also pose substantial disadvantages to using AI in resource-poor settings (van Deursen & van Dijk, 2019). This again points to the importance of understanding teacher perspectives because they provide valuable insight into practical realities around the use of AI in classrooms (Pokrivčáková, 2019). The role of teachers is not confined to only facilitating the use of AI tools but also to align these technologies with pedagogical goals, embedding these technologies in purposive ways to complement rather than replace traditional teaching methods (Liang et al., 2021). With their professional competencies, teachers can transparently assess the appropriateness of every AI tool for specific learning objectives through adapting the tools to best suit the students' needs (Guo et al., 2022). This is important adaptability for the purpose of making sure that AI is a supplementing resource that enhances learning rather than detracts from it (Yang & Kyun, 2022).

More importantly, AI opens routes to personalised learning that holds immense potential for the increased diversity within the classroom (Pane et al., 2017). Through the use of data on students, AI-powered tools automatically adapt the complexity, pace, and feedback of content against students' own varied abilities and ways of learning (Loeb, 2019). Adaptability like this has resulted in teachers reporting that students learn at their pace without anxiety and with improvement overall in learning outcomes (Luckin et al., 2016). However, such individualisation needs to be weighed against the requirements for collaborative and interactive learning experiences that are intrinsic to language development (Melchor-Couto, 2017). The teachers themselves are critical for providing a balance in these aspects and thus forming effective AI integration strategies (Baker & Smith, 2019).

Another related strand of interest concerns the role and responsibility of the teacher in AI. As AI technologies continue to evolve, they are likely to automate certain aspects of teaching, including grading and administrative tasks, so that instructors can focus on instructional and interpersonal roles (Luckin et al., 2016). This development, however, involves acquiring new skills by teachers, with a focus on understanding and handling the AI technologies (Pokrivčáková, 2019). It follows that professional development and training are incredibly important in building teachers' knowledge and confidence to deploy AI with ease in the classroom (Jiang, 2022). However, the value of studying teachers' perspectives on AI extends beyond implications for near-future classroom use: teachers also play a key role in giving shape to educational policy and practice; thus, their insights are worth considering for AI technology development and execution (Adolphs et al., 2018). Thus, these stakeholders will know where to make improvements, ensure equity in technology access, and address concerns about the effect of technology on teaching and learning (van Deursen & van Dijk, 2019).



The present study attempts to add to the foregoing understanding by investigating teachers' perceptions about the effectiveness of AI tools in engaging students in English language learning. This study, by using qualitative methods, shows the lived experiences and perspectives of teachers regarding opportunities and limitations of AI in educational settings (Liang et al., 2021). By highlighting the voices of educators, this study aims at informing future research, practice, and policy to make sure that the integration of AI in education is informed by the needs and insights of those who implement it (Baker & Smith, 2019).

# **Literature Review**

AI integration into educational processes in general and learning the English language has drawn much interest; efforts are made to further enhance students' participation with a variety of tools and techniques supported by AI (Kim et al., 2019; Guo et al., 2022). This literature review synthesises current research into AI applications in educational contexts and centres on teacher perspectives related to how AI influences student engagement, challenges in implementing AI, and personalising and making learning experiences adaptive for students.

### AI in education: overview and definitions

AI in education refers to systems that have all the capabilities to simulate human intelligence for solving problems, decision-making, and personalised support in learning. Defined as the "capability of digital systems to simulate cognitive tasks" by Baker and Smith (2019, p. 10), AI in education enables personalised and autonomous learning processes. These range from simple voice recognition and computer vision through to intelligent tutoring systems that adapt learning material to meet individual learner needs and offer immediate feedback. In the context, AI-powered systems take up this gamut of technologies to underpin both teacher-led and learner-driven engagement, therefore becoming core in contemporary pedagogical decisions in language learning, as Yin (2022) presented.

# Teacher perceptions of AI's role in enhancing engagement

Teachers perceive the role of AI either in enhancing or diminishing student engagement. Some educators relate more to AI as an interactive and motivational tool and note that in the contexts of English language learning, novelty and gamified features of AI fuel a high degree of engagement (Jones & Issroff, 2009; Hamari et al., 2014). For instance, Yang (2022) describes how interactive features of AI through gamification and real-time feedback introduce students to an interesting experience and are critical for sustained engagement. Teachers also observe how the adaptiveness of AI tools to student responses—instant feedback provided by AI tools—sustains engagement by allowing students to correct errors in real time (Pokrivčáková, 2019; Wang & Petrina, 2013). This enthusiasm is, however, dampened by concerns over the novelty effect. Teachers warn that although AI may initially capture the interests of all the students, the levels of engagement may dwindle once the technology becomes routine. That means that while AI tools are promising for motivation enhancement, they likely require additional instructional strategies to remain effective in the long term.

# AI as a means of supporting personalised learning

The adaptability of AI enables it to meet the needs of students on an individual level, thereby fostering personalised learning that can raise engagement. As Kim et al. (2019) note, one thing teachers appreciate



about AI is that differentiated instruction allows students to learn at their own speed and skill level, an approach especially welcomed in diverse classrooms. Empirical evidence shows that AI systems, such as intelligent tutoring systems, regulate task difficulty and provide adaptive support, which helps learners make progress without being overwhelmed or under-stimulated (Lin et al., 2012; Tai et al., 2022). As Yin (2022) explains, with the ability to track student engagement through voice and facial recognition, AI can monitor students in real time. It is thus able to offer them feedback and maintain their interest in online settings for learning English.

The benefits of AI are clear, yet teachers are very wary of complete reliance on personalisation driven by AI. These tools can reduce interactions between pupils and hence reduce opportunities for collaborative learning and critical thinking. While useful supportively at an individual level, AI tools often lack the ability to provide social interaction, which is important and necessary in language development. According to the teachers, there is a need for balanced use of AI so it can supplement but not wholly replace teacher-led personalised support (Liang et al., 2021).

# Challenges and limitations of AI integration in language learning

While the potential for AI to enhance engagement is widely recognised, educators emphasise a number of broader issues—most notably around access and equity. Conditions in underserved countries, where low device and internet availability exacerbate the digital divide in education settings, place additional restrictions on the adoption of AI by teachers (van Deursen & van Dijk, 2019). The barriers noted by those authors impede equal access to the benefits of AI, and Liang et al. (2021) have called for greater infrastructure support to enable pervasive implementations of AI. There is also an issue of students becoming overdependent on AI to the extent that their critical thinking and problem-solving skills are compromised. Lotze (2018) concurs, cautioning that continued reliance on AI can deprive learners of deeper cognitive processes. According to Wang and Lin (2018), teachers raise a similar concern in that although the tools speed up knowledge acquisition, they inhibit the ability of learners to apply acquired knowledge in new contexts without technological support.

Another critical restraint deals with the preparation of teachers in using AI for the classroom. According to Ertmer and Ottenbreit-Leftwich (2010), teachers need extensive training to understand how AI works and to learn best practices for pedagogical uses. Unless teachers are adequately trained, they will underutilise AI tools by not exploiting their full potential to support learning and student engagement. This means that professional training for teachers becomes vital, helping them develop the capacity to maximise AI's benefits while minimising its limitations in teaching the English language.

# AI as a supplementary, not replacement, tool

The balance of literature suggests that AI works best as an augmentation rather than a replacement for traditional teaching. Teachers consider AI as useful support that enlarges instructional variety yet stress that it cannot replace important interpersonal interactions and the subtle feedback provided by human instructors (Liang et al., 2021). According to Yin (2022), AI is supportive in one-to-one online classes as it increases engagement; however, teachers emphasise that face-to-face teaching remains highly relevant in language learning. AI tools therefore find their best use as complementary resources to enhance but not



completely replace conventional pedagogical methods. Further, the literature identifies the necessity for ongoing teacher professional development so that teachers can smoothly integrate AI tools into their instructional practices. According to Ertmer and Ottenbreit-Leftwich (2010), effective AI implementation requires skills and familiarity with AI's capabilities that can only be acquired through continuous training. This training not only improves AI use but also ensures that teachers themselves will be able to blend AI with traditional methods to afford a holistic and engaging learning experience.

**Research Questions** 

- 1. How do teachers perceive the role of AI tools in enhancing student engagement in English language learning, particularly through features like personalisation, real-time feedback, and gamification?
- 2. What challenges and limitations do teachers face in integrating AI tools into their teaching practices, and how do they address these challenges to balance the benefits of AI with traditional instructional methods?

#### Methodology

### Participants

These were 15 English language teachers from different levels of educational institutions in Malaysia, from primary to tertiary levels. Participants were selected based on their acquaintance with and utilisation of AI tools within classroom settings and their interest in sharing perceptions about the influence of these AI tools on student engagement. The sample included a mix of teachers from urban and rural areas, with teaching experience ranging from 5 to 20 years. This broad range of participants allowed the study to portray diversified views, representing novice and experienced teachers' understandings about AI integration in language learning. The participants for this study were selected through professional networks and educational institutions until they agreed to participate. Invitations to participate in this study targeted teachers in Kuala Lumpur, Selangor, and Penang and were sent via email. Out of 30 teachers contacted, 15 agreed to participate, representing a response rate of 50%. Their background thus balanced the views on challenges and advantages that AI presents within the different educational contexts of Malaysia.

# **Research Design**

This qualitative study used a phenomenographic design to investigate teachers' views about the effectiveness of AI tools in making texts engaging. This approach was employed to obtain a detailed description of how teachers experience and perceive AI in the process of learning the English language. Semi-structured interviews were used as a method for data collection because they are an appropriate guided but flexible means through which the views of participants can be comprehensively explored (Ertmer & Ottenbreit-Leftwich, 2010).

The interviews were conducted over a three-month period, from May to July 2024, and followed a guided framework covering topics such as:

- Perceived impact of AI tools on student engagement and motivation.
- Observed changes in student behaviour and learning outcomes since the introduction of AI tools.
- Challenges and limitations related to AI tool integration in English language instruction.



• Recommendations for enhancing AI tool usage to improve student engagement.

Each interview lasted approximately 45–60 minutes and was conducted via a secure online video platform to accommodate the participants' schedules and locations. With prior consent, all interviews were audio-recorded and later transcribed for detailed analysis.

## Procedure

Recruitment was developed through approval by the Ethical Review Board of the University of Malaya. A brief was given to the teachers about the purpose of the study, explaining that participation was voluntary and confidential. After briefing the teachers about the interview, those who agreed to participate were scheduled for a personal online interview. Before the interviews began, the interviewer provided a detailed explanation of the setting, structure, and purpose of the interview to ensure participants felt comfortable and fully aware of the procedures.

This semi-structured interview framework included 12 questions designed to elicit rich and detailed responses. Some of the aspects probed in these questions were related to the motivational impact that AI could have on students, the capacity of personalised learning tools, and the challenges associated with relying on this technology for student engagement. Moreover, questions and prompts were included to allow participants to describe situations specific to their experiences. Field notes were taken to capture non-verbal and contextual information, which were later integrated into the data analysis. Immediately after the interviews, transcripts were reviewed and coded for content using thematic analysis. Both inductive and deductive coding techniques were employed to identify primary and sub-themes. Transcripts were analysed multiple times to ensure comprehensiveness of insights.

# **Ethical Considerations**

Ethical clearance was obtained from the University of Malaya's Ethical Review Board. Consequently, all precautions were taken to ensure adherence to the highest standards for research involving human subjects (Ertmer & Ottenbreit-Leftwich, 2010). Participants were informed of the study's objectives, the confidentiality of their responses, and their right to withdraw at any stage without consequences. This information was provided through a detailed briefing. Written informed consent was obtained prior to participation, and explicit permission was sought to audio-record each session. To ensure privacy, all identifying information was anonymised, and data were stored on encrypted devices accessible only to the research team. Transcripts and audio recordings were treated as strictly confidential, and findings were reported in aggregate form to maintain anonymity. Participants were informed that anonymised quotes might be used within the findings, and they were given the opportunity to review and confirm the accuracy of their interview transcripts.

# **Data Analysis**

In analysing interview data, thematic analysis was conducted following the steps of familiarising oneself with the data, generating initial codes, searching for themes, reviewing themes, defining and naming themes, and producing the report. Inductive and deductive coding were adopted in this study to enable themes to emerge from the data while remaining within the focus of the study, which is AI's role in



student engagement. NVivo software was utilised to aid in coding and organising themes, which facilitated the identification of patterns for systematic categorisation. The analysis was iterative; reiterations were made to refine each theme for consistency and depth. An inter-rater reliability check was carried out, where another researcher independently coded a subset of the data. A 90% agreement rate was achieved, further strengthening the reliability of these findings.

### **Outcome Space**

The outcome space of the research covers the spectrum of teacher perceptions about the effectiveness of AI tools in enhancing learner engagement with the English language. This analysis yielded four referential categories that underlined various kinds of understanding of AI's role—from a motivational tool to a supplementary resource—embracing diverse ways teachers construct perceptions of AI's potentials and limitations. In each of the referential categories, structural elements were pinpointed to further detail the nuances of teachers' experiences and contextualise their views. Essentially, the referential categories and structural elements together present a more complete outcome space, highlighting the complexity and variation in how teachers experience and use AI tools in the classroom (Yang & Kyun, 2022).

#### Table 1.

Outcome Space - Teacher Perspectives on AI in Enhancing Student Engagement

Referential Category	Description	Structural Elements	Participant Codes
AI as a Tool for Enhancing Motivation	AI tools are perceived primarily as engaging, interactive resources that encourage student participation and curiosity.	<ul> <li>Engagement through novelty: Teachers report that Al's newness appeals to students, providing an engaging contrast to traditional methods.</li> <li>Gamification and rewards: Gamified elements like points, levels, and interactive feedback are seen as creating a motivational framework, encouraging students to progress through tasks.</li> </ul>	T1, T4, T7, T11
AI as a Means of Supporting Personalised Learning	Teachers view AI as an adaptable tool that supports individualised learning, allowing students to progress at their own pace and skill level.	<ul> <li>Self-paced learning support: Teachers believe AI enables students to learn at their preferred speed, alleviating time pressure and fostering comfort with material.</li> <li>Adaptability to skill levels: AI is valued for adjusting content complexity based on student progress, which aids in accommodating diverse learning needs in a single classroom.</li> </ul>	T3, T5, T9, T14
AI as a Resource with Practical Limitations	Despite recognising AI's potential, teachers express concerns about accessibility and the potential for over-dependence on technology.	<ul> <li>Technological access constraints: Limited device access and internet connectivity are seen as barriers to equitable AI utilisation.</li> <li>Over-reliance concerns: Teachers worry that frequent AI use may hinder critical thinking, as students become accustomed to quick answers and simplified processes.</li> </ul>	T2, T6, T8, T10
AI as an Emerging but Supplementary Method	Teachers view AI as a valuable addition to, but not a replacement for, traditional	- Complementarity with traditional methods: AI is seen as a tool that should complement, rather than replace, traditional	T12, T13, T15

Page | 374



instruction, requiring balanced	methods to provide a holistic learning
integration.	experience.
	- Professional development needs: Teachers
	highlight the need for training to effectively
	use AI, noting that many are unfamiliar with
	AI's full potential and best practices for
	integration.

#### Discussion

These results point out complex and multifaceted ways in which teachers perceive the role of AI tools in enhancing English language student engagement. By adopting a phenomenographic analysis approach, four referential categories were identified, each representing another level of understanding about the potential and limitations of AI in classrooms. These categories offer a nuanced framing for understanding teacher perspectives and hold considerable implications for informing future policy and pedagogical decisions in the use of AI. They are: AI as a Motivational Use Tool; AI as a Means to Support Personalised Learning; AI as a Resource with Practical Limitations; and AI as an Emerging but Supplementary Method.

### AI as a tool for enhancing motivation

One strong view held by the teachers is that AI is indeed an effective motivator in language learning. In this respect, T1, T4, T7, and T11 identified AI as a medium that brings excitement and engagement because of its novelty, interactive elements, and similar features. Most of them mentioned that the novelty of AI grabs students' attention, providing an engaging alternative to conventional instruction, which typically lacks that comparative degree of novelty. This finding aligns with research showing that the novelty of technology can enhance student motivation, particularly for students who find traditional learning environments less stimulating (Hamari et al., 2014). Furthermore, teachers highlighted that many AI tools incorporate gamification elements, such as points, levels, and rewards, which are widely recognised as impactful factors in increasing student engagement. By creating a game-like environment, these tools fulfil students' desire to compete and achieve success, both of which increase intrinsic motivation and task engagement. This phenomenon is especially valuable in language learning, where students may require additional motivation to persist through challenging material. Gamification within AI tools made learning feel less like a task and more like an enjoyable, interactive experience, according to the teachers in this study. At the same time, while the motivational effects of AI are evident, concerns were raised about sustainability. The "novelty effect" suggests that the initial enthusiasm generated by new technology may diminish over time, potentially leading to reduced engagement in the long term. Teachers and educational institutions should, therefore, explore methods to combine AI with other participatory strategies to maintain its motivational impact beyond the novelty phase (Jones & Issroff, 2009).

# AI as a means of supporting personalised learning

The second referential category highlights how AI is perceived as facilitating personalised learning. Teachers T3, T5, T9, and T14 appreciated AI's ability to adapt content so that students could work at their own pace and skill level. This self-paced approach is particularly valuable in large and heterogeneous classrooms were identifying an "optimal" pace for everyone is challenging. AI's capacity to support



differentiated learning aligns with research on personalised learning, which highlights how technology can facilitate self-managed learning and improve outcomes for a diverse student population. Teachers noted that the adaptability of AI, which progressively adjusts the difficulty level of content, helps students build confidence and maintain engagement with the subject matter. AI scaffolds learning appropriately and provides formative feedback, supporting students as they navigate challenging material. This tailoring of the learning experience to individual needs supports students who might otherwise struggle in a onesize-fits-all approach, thereby increasing engagement (Guo et al., 2022). However, while these advantages are significant, teachers also voiced concerns about the potential downsides of over-reliance on AI for personalised learning. As Loeb (2019) noted, an over-reliance on AI could result in unintended consequences, such as reducing teachers' ability to adapt instructional approaches through real-time classroom interaction. Additionally, AI-driven personalised learning may limit opportunities for collaborative learning, which is crucial for developing social skills and critical thinking. Teachers emphasised that while AI plays an important role in supporting personalised learning, it should be viewed as complementary to, rather than a replacement for, teacher-directed instruction.

### AI as a resource with practical limitations

The majority had concerns with its practical limitations, mainly around accessibility and issues of overreliance, yet were generally positive about the potential this kind of artificial intelligence (AI) may bring to the classroom. Those teachers in this category include T2, T6, T8, and T10; they mentioned issues of technological access, such as the fact that some students may not have access to good enough devices or an effective internet connection to engage with AI tools on equal terms. Predictably, this finding supported the digital divide literature, which suggests that disparities in technology access stand in the way of truly equal education. Teachers also expressed apprehension regarding the overdependence of students on AI, which could result in a lack of problem-solving skills and critical thinking. The more frequently students seek solutions from AI, the less likely they are to engage deeply with challenging materials on their own. This concern aligns with Luckin et al. (2016), who argue that over-reliance on AI suppresses the development of important cognitive skills.

Such limitations suggest the need for balanced integration that encourages learners to engage critically with AI and avoid passive reliance on technology. These issues can be approached in several ways. First, educational institutions should commit to bridging the digital gap by investing in resources and infrastructure that make AI tools equally accessible to all students. Second, teachers should implement practices that encourage students to think of AI as a support system rather than a mere repository of information, empowering them to engage in independent thinking.

# AI as an emerging but supplementary method

The last referential category reflects a perspective that considers AI an auxiliary tool, an enhancement, and a complement rather than a replacement for traditional face-to-face teaching methods. Teachers T12, T13, and T15 expressed optimism about AI, particularly when combined with face-to-face interaction to provide a comprehensive learning experience. This view aligns with the blended learning model, which integrates digital tools with face-to-face teaching to maximise engagement and enhance learning outcomes.



These teachers also highlighted the need for continuous professional training, as effective integration of AI requires specific skills and knowledge about the functionality of these tools. Without such training, AI might be underutilised or poorly implemented in the classroom. This point is reinforced by Ertmer and Ottenbreit-Leftwich (2010), who argue that professional growth is necessary for the successful adoption of technology in educational contexts. Schools can make AI more effective for student engagement by ensuring that teachers are adequately trained in the necessary skills and knowledge, enabling them to use AI thoughtfully. Taking AI as supplementary, the consensus among teachers reflects the view that while AI has notable advantages, it cannot substitute for the interactive, nuanced learning experiences provided by human teachers. In this way, the full potential of AI can be harnessed without losing the essential interpersonal elements of teaching.

# **Implications for practice**

The diversity of perspectives suggested by this outcome space leads to several practical implications regarding the integration of AI in the English learning process. First, the motivational benefits provided by AI can be maximised if its interactive features are integrated as part of a broader engagement strategy. Educators should avoid relying solely on AI's novelty and instead adopt varied approaches to sustain engagement over time. Secondly, AI support for personalised learning is particularly valuable in cognitively diverse classrooms. Schools should consider leveraging AI to support differentiated instruction, as it offers the potential to tailor learning experiences to individual needs (Loeb, 2019). However, precautions must be taken to avoid over-reliance on AI in delivering individualised learning. Teachers should maintain an active role in adapting content and providing personalised feedback. Third, practical constraints on AI-particularly those arising from unequal access and over-reliance-should be minimised through targeted investment in digital infrastructure and strategies for responsible use. Educational institutions and policymakers should work toward bridging the digital gap at the level of educational service delivery, ensuring that AI use enhances student autonomy rather than hindering it. Professional development is crucial for teachers to maximise AI's potential. When teachers view AI as complementary to traditional methods, they can integrate it thoughtfully, striking a balance that brings students into the language-learning process through a holistic approach.

#### Conclusion

This study has presented teachers' perceptions of how AI tools have enhanced students' English language learning processes by improving academic engagement. It highlighted how gamification, immediate feedback, and personalisation features in AI tools contribute to increased motivation and tailored learning experiences, effectively addressing the needs within EFL contexts. However, it also underscored challenges such as differential access, over-reliance on technology, and the need for extensive professional development.

For teachers, AI should be viewed as a support system rather than a replacement for human teaching. A balanced approach that combines technological innovations with face-to-face instructional support is essential. These findings illuminate both the opportunities and limitations of AI in education and offer valuable insights for educators, policymakers, and developers aiming to optimise AI's role in language learning. By centring teachers' experiences and insights, this research strongly argues that to harness AI's



full potential, teachers must be well-trained and resourced. Social interaction and critical thinking, which remain vital in increasingly digital classrooms, must also be preserved.

### Acknowledgment

The author would like to thank his PhD supervisor for making this study possible. He also wanted to thank all participants who were involved and utilised their resources to make it successful.

## **Conflict of interest**

The author hereby confirms that this study has no conflict of interest and has not received any financial support.

#### References

- Adolphs, S., Clark, L., Dörnyei, Z., Glover, T., Henry, A., Muir, C., et al. (2018). Digital innovations in L2 motivation: Harnessing the power of the ideal L2 self. *System*, 78, 173–185. https://doi.org/10.1016/j.system.2018.07.014
- Baker, T., & Smith, L. (2019). Educ-AI-tion rebooted? Exploring the future of artificial intelligence in schools and colleges. *Nesta Foundation*.

https://media.nesta.org.uk/documents/Future\_of\_AI\_and\_education\_v5\_WEB.pdf

- Chen, Y., Smith, T. J., York, C. S., & Mayall, H. J. (2020). Google Earth virtual reality and expository writing for young English learners from a funds of knowledge perspective. *Computer Assisted Language Learning*, 33(1), 1–25. https://doi.org/10.1080/09588221.2018.1544151
- Chien, S.-Y., Hwang, G.-J., & Jong, M. S.-Y. (2020). Effects of peer assessment within the context of spherical video-based virtual reality on EFL students' English-speaking performance and learning perceptions. *Computers & Education*, 146, 103751. https://doi.org/10.1016/j.compedu.2019.103751
- Cowie, N., & Alizadeh, M. (2022). The affordances and challenges of virtual reality for language teaching. *International Journal of TESOL Studies*, 4(3), 50–65. https://doi.org/10.46451/ijts.2022.03.05
- Graham, C. R. (2006). Blended learning systems: Definition, current trends, and future directions. In C.
   J. Bonk & C. R. Graham (Eds.), *The handbook of blended learning: Global perspectives, local designs* (pp. 3–21). San Francisco, CA: Pfeiffer Publishing.
- Guo, K., Wang, J., & Chu, S. K. W. (2022). Using chatbots to scaffold EFL students' argumentative writing. *Assessing Writing*, 54, 100666. https://doi.org/10.1016/j.asw.2022.100666
- Hamari, J., Koivisto, J., & Sarsa, H. (2014). Does gamification work?--A literature review of empirical studies on gamification. 2014 47th Hawaii International Conference on System Sciences, 3025–3034. https://doi.org/10.1109/HICSS.2014.377
- Jiang R (2022) How does artificial intelligence empower EFL teaching and learning nowadays? *A review on artificial intelligence in the EFL context*. Front. Psychol. 13:1049401. https://doi.orhg/0.3389/fpsyg.2022.1049401
- Jones, A., & Issroff, K. (2009). Motivation and mobile devices: Exploring the role of appropriation and coping strategies. *Research in Learning Technology*, *17*(3), 247–258. https://doi.org/10.3402/rlt.v17i3.10881

Page | 378



- Kapp, K. M. (2012). The gamification of learning and instruction: Game-based methods and strategies for training and education. John Wiley & Sons.
- Kim, N.-Y., Cha, Y., & Kim, H.-S. (2019). Future English learning: Chatbots and artificial intelligence. *Multimedia-Assisted Language Learning*, 22(3), 32–53.
- Lan, Y.-J., Fang, W.-C., Hsiao, I.-Y., & Chen, N.-S. (2018). Real body versus 3D avatar: The effects of different embodied learning types on EFL listening comprehension. *Educational Technology Research and Development*, 66, 709–731. https://doi.org/10.1007/s11423-018-9569-y
- Liang, X., Wu, Y., & Zhang, J. (2021). Research trends of artificial intelligence applications in language education: A bibliometric analysis. *Computer Assisted Language Learning*, 34(5–6), 674–697. https://doi.org/10.1080/09588221.2019.1681465
- Lin, C.-C., Liu, G.-Z., & Wang, T.-I. (2012). Employing textual and facial emotion recognition to design an affective tutoring system. *Turkish Online Journal of Educational Technology*, *11*(4), 418–426.
- Liu, Y., Chen, L., & Yao, Z. (2022). The application of artificial intelligence assistant to deep learning in teachers' teaching and students' learning processes. *Frontiers in Psychology*, 13, 929175. <u>https://doi.org/10.3389/fpsyg.2022.929175</u>

Loeb, S. (2019). Personalizing learning at scale: What works and what doesn't. *Education Next*, 19(4), 76–83.

- Lotze, N. (2018). Goodbye to classroom teaching: Artificial intelligence in language learning. *Goethe-Institut Magazin Sprache*. https://www.goethe.de/en/spr/mag/dsk/21290629.html
- Luck, M., & Aylett, R. (2000). Applying artificial intelligence to virtual reality: Intelligent virtual environments. *Applied Artificial Intelligence*, *14*(1), 3–32. <u>https://doi.org/10.1080/088395100117142</u>
- Luckin, R., Holmes, W., Griffiths, M., & Forcier, L. B. (2016). Intelligence unleashed: An argument for AI in education. Pearson.
- Melchor-Couto, S. (2017). Foreign language anxiety levels in Second Life oral interaction. *ReCALL*, 29(1), 99–119. https://doi.org/10.1017/S0958344016000185
- Pane, J. F., Steiner, E. D., Baird, M. D., & Hamilton, L. S. (2017). Informing progress: Insights on personalized learning implementation and effects. RAND Corporation. https://doi.org/10.7249/RR2042
- Pokrivčáková, S. (2019). Preparing teachers for the application of AI-powered technologies in language education. *The European Journal of Applied Linguistics and TEFL*, 8(1), 213–234.
- Rau, P.-L. P., Zheng, J., Guo, Z., & Li, J. (2018). Speed reading on virtual reality and augmented reality. *Computers & Education*, 125, 240–245. https://doi.org/10.1016/j.compedu.2018.06.016
- Tai, T.-Y., Chen, H. H.-J., & Todd, G. (2022). The impact of a virtual reality app on adolescent EFL learners' vocabulary learning. *Computer Assisted Language Learning*, 35(1), 892–917. https://doi.org/10.1080/09588221.2020.1752735
- van Deursen, A. J., & van Dijk, J. A. (2019). The first-level digital divide shifts from inequalities in physical access to inequalities in material access. *New Media & Society*, 21(2), 354–375. https://doi.org/10.1177/1461444818797082
- Wang, Y. F., & Petrina, S. (2013). Using learning analytics to understand the design of an intelligent language tutor: Chatbot Lucy. *International Journal of Advanced Computer Science and Applications*, 4(1), 124–131. <u>https://doi.org/10.14569/IJACSA.2013.041117</u>

Page | 379



- Wu, C.-H., Lin, H.-C. K., Wang, T.-H., Huang, T.-H., & Huang, Y.-M. (2022). Affective mobile language tutoring system for supporting language learning. *Frontiers in Psychology*, 13, 833327. <u>https://doi.org/10.3389/fpsyg.2022.833327</u>
- Xu, X., Dugdale, D. M., Wei, X., & Mi, W. (2023). Leveraging artificial intelligence to predict young learner online learning engagement. *American Journal of Distance Education*, 37(3), 185–198. <u>https://doi.org/10.1080/08923647.2022.2044663</u>
- Yang, H., & Kyun, S. (2022). The current research trend of artificial intelligence in language learning: A systematic empirical literature review from an activity theory perspective. *Australasian Journal of Educational Technology*, 38(5), 180–190. https://doi.org/10.14742/ajet.7619
- Yin, W. (2022). An artificial intelligent virtual reality interactive model for distance education. *Journal of Mathematics*, 2022, 1–10. https://doi.org/10.1155/2022/7099963
- York, J., Shibata, K., Tokutake, H., & Nakayama, H. (2021). Effect of SCMC on foreign language anxiety and learning experience: A comparison of voice, video, and VR-based oral interaction. *ReCALL*, 33(1), 49–70. https://doi.org/10.1017/S0958344020000154

# Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal. This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution.