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EFL Teacher's Perspectives on Integrating AI into Reading Comprehension Teaching in Papua

[*1]Heni Purwati[*], [2]Rahmawansyah, [3]Anggit Prasetio Nugroho
IAIN Fattahul Muluk Papua
Papua, Indonesia
henyhp992@gmail.com, rahmawansyah@iainfmpapua.ac.id,
anggitprasetio72@gmail.com

Abstract. This study explores EFL teachers' perspectives on integrating Artificial Intelligence (AI) technologies into reading comprehension instruction in Papua, Indonesia. This study employed a quantitative descriptive survey, conducted with 17 teachers from elementary, junior high, and senior high schools. Data were collected through an online questionnaire and analyzed using descriptive statistics. Findings showed that teachers were generally familiar with AI and express confidence in its use, particularly with widely accessible tools such as ChatGPT and Grammarly. Teachers viewed AI as beneficial for enhancing comprehension and providing personalized support, yet remained cautious about its potential to motivate students. Challenges on AI usage included lack of training, limited infrastructure, and ethical concerns such as plagiarism and student over-reliance. Teachers emphasized the importance of having access to AI-based tools, opportunities for peer collaboration, and focused professional development in order to overcome these challenges. The study indicates that although integrating AI has the potential to enhance reading comprehension, adoption of this technology is still at a transitional stage. Clear ethical standards, fair resource distribution, and teacher-centered training will all be necessary for successful implementation.

Keywords: Artificial Intelligence (AI); reading comprehension; EFL teacher perspectives; Papua

Introduction

The rapid advancement of technology has given research various Artificial Intelligence (AI) tools that simplify human life and work. Chen et al. (2020) explains that AI replicates human intelligence by utilizing learning, cognitive processing, adaptability, and decision-making abilities.

[1] Corresponding author: *Heni Purwati, henyhp992@gmail.com*

In education, AI becomes increasingly relevant, offering opportunities to foster engagement in teaching and learning context.

Research highlights its potential to transform traditional practices, particularly in English as a Second Language (ESL) context (Sharifuddin & Hashim, 2024). AI technologies, including intelligent tutoring systems, adaptive reading platforms, and natural language processing tools present significant potential for improving instructional methods and enabling more individualized learning experiences (Luckin et al., 2016).

English language teaching in Indonesia has also undergone a significant transformation to align with the demands of the contemporary era and to address the needs of learners whose educational experiences are increasingly shaped by technology use. In Papua, both the regional Department of Education and various educational quality improvement institutions have actively initiated digitalization programs, especially through professional development training designed to enhance teachers' technological competence and digital literacy. To this day, Papua remains categorized as an underdeveloped region, primarily due to persistent challenges such as inadequate infrastructure, limited access to education, and a shortage of qualified teachers (Bawor & Ahmad, 2023). Such constrains have adversely affected the region's human capital development and underscore the imperative for equitable educational policies and strategically designed interventions, with particular emphasis on advancing foreign language education (Riski et al., 2025; Leba et al., 2021; Hasbullah et al., 2023).

In English language learning, reading is widely recognized as a foundational skill for academic success and personal growth. Freire (1983) highlighted that reading serves not merely as a tool for comprehending the world but also as a crucial element in fostering human development. Effective reading instruction requires systematic teaching, constructive feedback, and sustained practices (Serrano-Mendizábal et al., 2023). However, researches indicate that reading motivation, comprehension, and attitudes toward reading tend to decline with age (De Smedt et al., 2020; Kush & Watkins, 1996). These declines are often associated with limited access to suitable materials, insufficient personalized instruction, restricted exposure to diverse texts, and underdeveloped reading strategies and metacognitive skills (Pérez-Segura et al., 2022). Considering the importance of reading skill for students' academic or non-academic success, EFL teachers in Papua have started to integrate technology in reading instruction. However, teachers frequently encounter challenges while integrating technology in their classroom such as the limited access to internet, lack of technology literary, time management issues, and other problems related to students' low engagement and motivation. Prior study indicated that while AI can supplement instructional practices, the teacher remains central in directing learning practices and cultivating high-order comprehension (Zawacki-Richer et al., 2019).

Although studies on AI in education are expanding, limited attention has been given to teachers' perspectives on incorporating AI into reading comprehension instruction. Yudhiantara & Sugilar (2023) investigating the pre-service ability to use AI-based application in reading comprehension asserts that teachers have positive view of AI tools facilitating language learning and teaching. AI technology also assists teachers evaluating EFL students' reading comprehension formatively (Cahyanto & Sutrisno, 2024). Thus, AI is not only

beneficial in reading instructions, but also useful as a assessment tool. Artificial Intelligence improve reading skills (the literal and inferential reading) of higher education students, although its implementation still faces challenges. It explores the role of AI in pedagogy and examines its potential influence on reading instruction within higher education (Nugrahawati, 2024). Investigating teachers' perspective on AI integration in reading instruction is particularly important in the English Education context of Papua, where educational challenges are unique and research on this topic remains limited. Understanding how teachers perceive both the opportunities and obstacles of adopting AI is crucial for designing effective, context-sensitive strategies that can enhance reading outcomes while addressing local constraints.

Method

This research employed a quantitative descriptive survey design to investigate EFL Papuan Teachers' perspective on integrating AI technologies into reading comprehension teaching. The survey design is widely used in educational research to systematically collect data from a large number of respondents in order to describe attitudes, perceptions, and practices (Creswell & Cresswell, 2018). The population of this study consisted of EFL teachers in Jayapura, Papua teaching at elementary schools, junior high schools, and senior high schools. Given the contextual diversity of education in Papua, the sample will be selected using purposive sampling, focusing on teachers who (1) have at least two years of teaching experience, and (2) possess some awareness of AI technologies relevant to reading instruction. The total sample of this research was 17 EFL teachers.

The survey consisted of a structured questionnaire which has been widely recognized as an effective tool for measuring perception and attitudes in educational contexts (Dornyei &Taguchi, 2010). The questionnaire is based on a review of existing studies on AI in education (Holmes et al., 2019; Zawacki-Richter et al., 2019) and consisted of four categorized such as teachers' demographic information, perceive usefulness of AI, Challenges and Barriers, and Readiness and Attitudes to adopt AI tools in reading instruction. The questionnaire was administered in online format (via Google Form) and distributed to teachers via WA application. Data collected will be analyzed using descriptive statistic (mean, percentage, and standard deviation) to summarize trends in teachers' perspective.

Findings and Discussions

Demographic of Participants

This part provides background variables such as teaching experience, school type, and prior exposure to AI, as depicted in table 1.

Table 1. Demographic Characteristics of participants (N= 17)

Categories		Participants
Teaching Experiences	Less than 5 years	6 (35.3%)
	5 -10 years	7 (41.2%)
	10-15 year	3 (17.6)
	More than 15 years	1 (5.9%)

Age	Under 25 years	3 (17.6%)
	25-34 years	10 (58.8%)
	35-44	3 (17.6%)
	45-54	2 (11.8)
	Above 55	0 (0%)
Schools	Elementary School	5 (29.4%)
	Junior High School	5 (29.4%)
	Senior High School	7 (41.2%)

Information in table 1 revealed that most participants had 5-10 years of teaching experience (41.2%), followed by less than 5 years (33.3%), 10-15 years (17.6%), and more than 15 year (5.9%). It indicated that the sample is dominated by early -to mid-career teachers, with relatively few senior teachers. It was also found that more than half of the teachers were in the 25-34 age group (58.8%), with smaller proportions in under 25 years (17.6%) and 35-44 years (17.6). Only 11.8% of participants were aged 45-54, and none were above 55. These findings indicated the predominance of early -to mid-career and younger teachers reflecting a teaching force that is still relatively young and adaptable. Studies report that younger teachers are generally more open to experimenting with digital tools compared to their more experienced peers (Prensky, 2001; Buabeng-Andoh, 2012). It partly explains positive attitudes towards AI adoption despite infrastructural barriers.

The majority of participants also came from senior high schools (41.2%), while elementary and junior high school teachers were equally represented (29.4% each). The age distribution reinforces the finding that teaching cohort is dominated by younger educators. The demographic profile suggested favorable conditions for the gradual introduction of AI-based approaches to teaching reading particularly to younger teachers because they are typically more digitally literate and more willing to integrate new technology into their pedagogy (Spector, 2022).

EFL Teachers' Familiarity and Perceived Usefulness of AI Technologies

This part discusses the extent to which teachers know about, understand, and feel comfortable using AI-based tools in the context of teaching and learning languages. It is not just about having heard of AI, but also awareness of availability AI tools, understand AI roles to support different aspects of language teaching, and experience and confidence in applying AI in classroom or instructional settings. In Addition, the perceived usefulness of AI described how much a person believes that using AI will improve their performance, make tasks easier, or bring benefits in their work or daily activities. The Technology Acceptance Model (TAM) asserts that perceived usefulness is one of the main factors influencing whether people decide or adopt a new technology.

Table 2. Current teaching and familiarity of AI technology

	Reponses (%)					Mean
Current Teaching Practice	*Never*	*Rarely*	*Sometimes*	*Often*	*Always*	
Do you use AI-based tools in your teaching	0	0	29.5	58.8	11.8	0.88
How often do you use technology tools for	0	11.8	41.2	29.4	17.6	3.53

reading comprehension activities?	

As shown in table 2, the majority of teachers reported using AI-based tools in their teaching, with 58.8% indicating teachers used AI tools often, and 11.8% always, while 29.5% used them only sometimes. When codes as a binary variable (Yes=1, No=0). The mean score was *M*- 0.88, suggesting that most respondents had prior exposure to AI tools.

In term of digital technology integration for reading comprehension activities, teachers reported relatively frequent use, with 41.2% indicating 'sometimes', 29.4% 'often' and 17.6% 'always.' The mean score of *M*=3.53 indicates a moderate to high level of technology use in reading comprehension instruction.

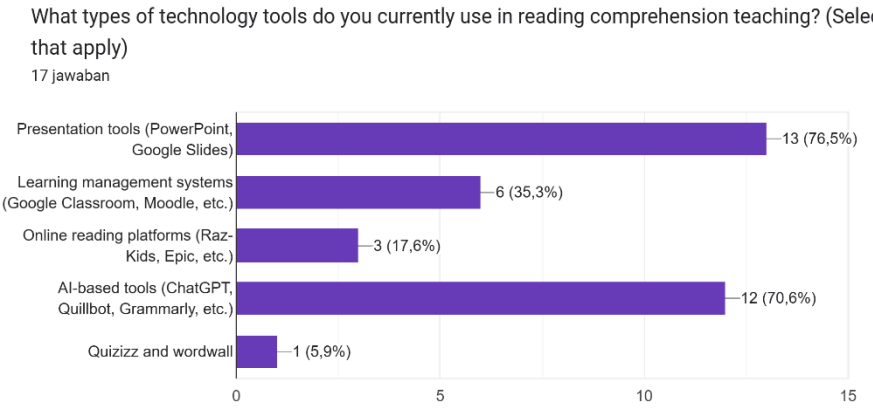

Figure 1. Types of Technology tools currently used in Teaching Reading

The survey results indicated that teachers employed a variety of technology tools to support reading comprehension instruction. The most commonly used tools were presentation applications such as PowerPoint and Google Slides (76.5%), followed closely by AI-based tools like ChatGPT, Quillbot, and Grammarly (76.6%). The Learning Management System (LMS), including Google Classroom and Moodle, were reported by 35.3% of participants, while only a small proportion made use of online reading platforms such as Raz-Kids or Epic (17.6%). The last frequently used tools were gamified applications like quizzizz and Wordwall, which were reported by just 5.9% of respondents. The findings suggest that while teachers are increasingly integrating AI technologies alongside traditional tools, the use of interactive and student-centered platforms remains relatively limited.

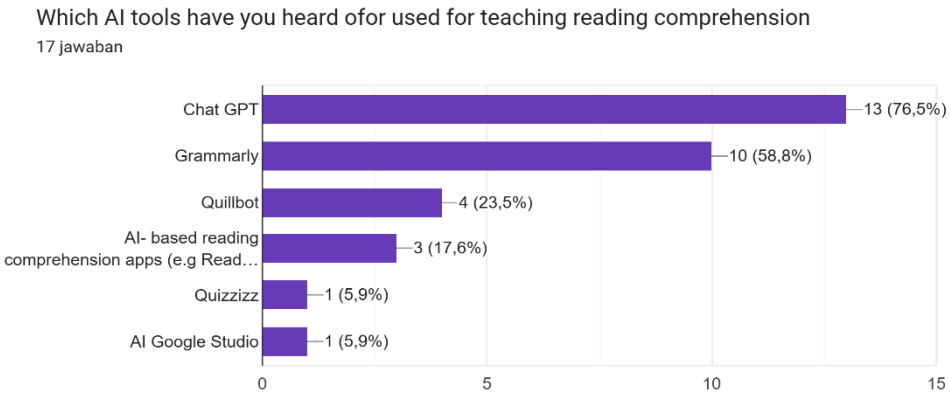

Figure 2. AI Tools Teachers Currently Used for Teaching Reading

The survey results showed that general-purpose AI tools such as ChatGPT (76.5%) and Grammarly (58.8%) are the most widely recognized by teachers, while more specialized AI tools such as Quillbot (23.5%) and AI based reading comprehension applications (17.6) were less familiar. This pattern aligns with AI recent studies on AI adoption in education, which emphasize that teachers tend to engage first with high-visibility, versatile, and user-friendly AI tools before exploring more specialized applications (Ozdemir & Mede, 2024; Syafrayani et al., 2024). ChatGPT, in particular, has been identified as one of the most accessible generative AI tools, valued for its ability to generate texts, comprehension questions, and summaries to support reading instruction (Caines et al., 2023).

Similarly, Grammarly's popularity among teachers mirrors earlier findings that AI-powered grammar and writing task assistants are among the most widely adopted tools in language education because of its clear and immediate benefits in improving text accuracy and readability (Li, 2022). Otherwise, the use of AI reading and gamified applications remains less popular, reflected the broader literatures showing that while such applications offer pedagogical potential, their use remains limited by factors such as lack of exposure, training, or institutional support (Zawacki-Richter et al., 2019). The implementation of these specialized applications or platforms require higher level of digital literacy and pedagogical adaptation, which often slow down their integration into classroom practice (Holmes et al., 2021). These findings confirm that the integration of AI in language teaching occurs gradually, with teachers initially adopting highly visible and user-friendly tools before progressing to more specialized or advanced applications.

Teachers' Perspective on AI in Reading Comprehension

This part discusses teachers' attitude, beliefs, and evaluations regarding the integration of AI tools in teaching reading comprehension. It encompasses teachers' views on the usefulness of AI in supporting students understanding of text, willingness or readiness to adopt such AI tools, the challenges and limitation associated with its implementation, and the potential development to adopt such tools within instructional practices.

Table 3. Perspective on AI in Reading Comprehension (N=17)

Questions	Reponses (%)					Mean
Current Teaching Practice	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree	
AI technologies can enhance students' reading comprehension skills	0	0	23.5	70.6	5.9	3.82
AI technologies can provide personalized reading support for students	0	0	29.4	70.6	0	3.71
AI use in reading comprehension teaching can motivate students to engage more actively	0	5.9	23.5	58.8	0	3.18
I feel confident integrating AI into my teaching	0	0	5.9	52.9	41.2	4.35
AI may pose ethical or academic integrity challenges (e.g., plagiarism, over-reliance)	0	0	41.2	58.8	0	3.59
The integration of AI in reading comprehension should be encouraged in schools.	0	0	29.4	58.8	11.8	3.82

Table 3 presents teachers' perspective on the use of AI in reading comprehension. Overall, the responses indicate a generally positive attitudes toward AI integration, with most mean scores are above 3.5. The results align with earlier studies highlighting the transformative potential of AI in literacy instruction. Alzubi (2021) reported that AI-powered applications offer adaptive feedback and individualized learning pathways that improve students' comprehension outcomes, which is consistent with teachers' view in this study. AI has the capacity to replicate aspects of human intelligence, such as adaptability and decision-making, thereby enabling tailored reading support (Chen et al., 2020).

The highest-rated statement in the survey was " *I feel confident integrating AI into my teaching*" (M=4.35) suggests a strong confidence in teachers' ability to integrate AI into reading instruction. It slightly contrasts with the earlier studies where teachers often reported hesitation or lack of confidence due to limited training and technological familiarity (Holmes et al., 2019). However, this finding may reflect the participants' demographic situations who are dominated by early to mid-career and younger teachers, typically more digitally literate and more willing to integrate new technology into their pedagogy. Meanwhile, the lower mean score on AI's role in motivating students (M = 3.18) suggests lingering doubts. Similar to Zawacki-Richter et al. (2019), this indicates that while AI supports teaching efficiency, teachers still see human interaction as the key driver of student engagement.

Participants also raised ethical and academic integrity concerns (M=3.59), echoing Cotton et al (2023), who cautioned against risks like plagiarism and over-

reliance. Overall, the findings suggest that AI adoption in education is gradual, teachers readily use tools that support comprehension and personalization but remain cautious about motivation and integrity. This highlights the needs for professional development that both promotes AI use and addresses its ethical challenges.

Challenges and Supports Needed of AI Integration in Reading Comprehension

This section highlights both the barriers and the necessary supports for successful AI use in reading comprehension teaching.

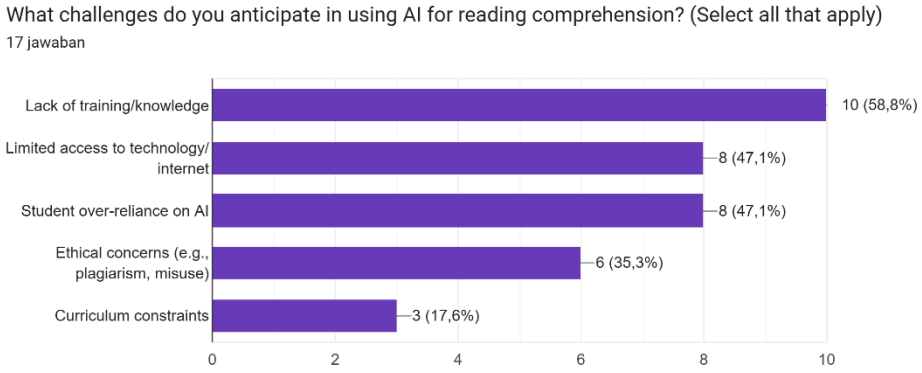

Figure 3. Challenges of AI integration in Teaching Reading

The data in figure 3 shows that the most frequently cited challenge in integrating AI for reading comprehension was a lack of training and knowledge, reported by 58.8% of teachers (n=10). Nearly half of the respondents also highlighted limited access to technology and internet (47.1%, n=8) as well as students' potential over-reliance on AI (47.1%, n=8). Ethical concerns, such as plagiarism and misuse, were mentioned by 35.3% (n=6) of participanta, while curriculum constraints were reported by a smaller portion, 17.6% (n=3). The findings revealed that teachers encounter both technical barriers (e.g., access and infrastructure) and pedagogical concerns (e.g., training, ethics, and student dependency), which need to be addressed to ensure a meaningful AI integration.

These findings align with prior studies. Cotton at al. (2023) asserts that students' over-reliace on AI may reduce critical thinking and acadmic integrity. Similarly, Chen et al. (2020) Emphasize that adequate teacher training is essential to maximize AI's educational benefits. Futhermore, Holmes et al. (2022) highlight that infrastructure gaps and curriculum misalignment remain significant barriers to implementing emerging technologies in classroom.

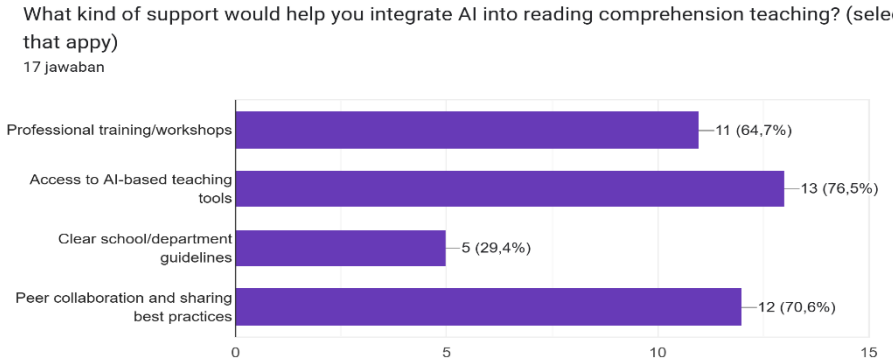

Figure 4. Suppors needed of AI Integration in Teaching Reading

Teachers valued pragmatic and support in order to integrate AI into reading comprehension lessons, where access of AI teaching materials was the most needed (76.5%; n = 13), then peer-sharing for collaboration and best practice sharing with peers (70.6%; n = 12). From a TPACK point of view, this focus suggests the importance teaching need to find technologies of pedagogical action in AI outside rather than within time and space that is curriculum driven. The value given to peer collaboration also corresponds to sociocultural theory, where professional learning is seen as a social activity that involves interaction and the exchange of practice. Professional training and workshop were also considered important by 64.7% (n=11) of respondents, supporting prior research that highlights capacity building as an influential factor in technology adoption and acceptance. In contrast, relatively few teachers (29%. N=5) viewed clear school guidelines as a fundamental support. This finding suggests a disconnect between policy-level frameworks and classroom-level needs.

These findings suggest that successful AI integration in reading comprehension requires addressing both barriers (e.g., training gaps, infrastructure limitations, ethical concerns,) and providing supports (e.g., access to tools, professional development, and collegial exchange). The earlier studies also emphasize that technology adoption in education is most effective when accompanied by adequate training, infrastructure, and peer collaboration (Cotton et al., 2023; Holmes etal., 2022; Voihofer & Nelson, 2023).

Conclusion

This study explored EFL teachers' perspectives on the integration of AI in reading comprehension instruction in Papua. The findings revealed that teachers generally view AI as a valuable support for enhancing comprehension and providing personalized learning opportunities. Widely used tools such as ChatGPT and Grammarly illustrate that teachers gravitate toward accessible and versatile AI applications. Younger and mid-career teachers, who formed the majority of participants, demonstrated strong confidence in using AI, reflecting their digital literacy and openness to innovation. Despite these positive attitudes, challenges remain. Meaningful adoption is still hindered by inadequate training, gaps in the infrastructure, and moral issues like plagiarism and over-reliance. Teachers also emphasized the ongoing value of human interaction in literacy instruction by

pointing out that AI might not be enough to maintain student motivation. Participants emphasized the need for useful resources, such as peer collaboration, targeted professional development, and access to AI tools as solutions to address these problems.

The study suggests that AI integration in reading comprehension is promising but still at a transitional stage. A balanced strategy that builds teacher capacity, guarantees fair access to resources, and creates ethical standards will be necessary for successful implementation. The implication for legislators and school administrators is obvious, AI should be implemented as an complementary tool that supports, not replaces, the role of teachers in encouraging critical thinking and active reading engagement.

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