Teachers' Perspectives on AI-Driven Quillionz for Generating EFL Reading Comprehension Quizzes

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ABSTRACT

Emerging artificial intelligence (AI) has significant impacts on language learning and teaching, providing innovative pedagogies in sustainable educational settings. Among the powerful tools stands Quillionz (https://www.quillionz.com), a free AI-powered platform for building questions, quizzes, and assessments. Nevertheless, there has been little research on teachers' experiences and perceptions of using Quillionz in EFL classroom settings. This study set out to explore teachers' perspectives on utilizing Quillionz to generate reading comprehension quizzes for non-English major students through a pre and post-survey design. The research employed both qualitative and quantitative methods with Likert-scale questionnaires distributed to 48 English teachers from a vocational college in Hanoi before and after using Quillionz over four weeks. A paired sample T-Test was conducted to explore shifts in teachers' perceptions. Subsequently, in-depth interviews were carried out with 10 randomly selected participants for further investigation. The findings revealed positive views among teachers towards Quillionz, its identified potential, and suggestions for more effective implementation. This paper makes a significant contribution to the integration of technology in language teaching, thereby enhancing students' learning experiences.

Keywords: AI, reading comprehension, teachers' perspectives, quizzes, Quillionz

Introduction

In the twenty-first century, artificial intelligence (AI) has become a key component of language education, which not only alters traditional teaching methods but also improves the learning and teaching experience. Since it was reported in the research of Liang et al. (2021), AI technology has provided novel solutions that reduce educational activities while simultaneously increasing students' engagement through adaptive learning. In addition, AI-powered tools help teachers create vocabulary and grammar quizzes, reading comprehension exercises fast and efficiently. They automate the generation of questions and tests so that instructors can focus on

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learners' language acquisition rather than administrative responsibilities (Dijkstra et al., 2022).

Existing research recognises the critical role played by AI in English as a Foreign Language (EFL) education, with studies showing the ability of AI-powered technologies to improve learning outcomes (Marr, 2018; Li, 2020; Wang et al., 2023). AI systems have gained traction for their ability to speed quiz production, provide on-time feedback, and improve students' autonomy, which assists teachers to check students' comprehension while saving time (Alam, 2023). Dijkstra et al. (2022) found that AI-driven technologies improve quiz accuracy and content alignment to create more effective learning assessments. Similarly, Khan et al. (2021) discovered that AI-generated quizzes enable a more tailored and efficient evaluation procedure, which benefits both instructors and learners.

Quillionz, an AI-driven platform that can automatically generate questions from reading materials, is a powerful tool to reduce teachers' workload. Within the educational context of Vietnam, this study examines the opinions of EFL teachers at a vocational college in Hanoi on the use of Quillionz, an AI-based web, to generate reading comprehension quizzes. By exploring teachers' perceptions, attitudes, and perceived efficacy towards the integration of AI integration in quiz generation, the study offers some important insights into the practical applications of AI in language teaching. Furthermore, the research makes a major contribution to research on the function of AI in educational settings, namely in improving teaching efficiency and student learning results.

Literature review

AI and its impacts on EFL education

The application of artificial intelligence (AI) into education has reformed many aspects of teaching and learning, especially in EFL education. Thanks to AI technologies, traditional teaching methods have been revolutionized with a number of educational activities, such as offering personalized, adaptive, and data-driven instructional approaches (Konar, 2018). In EFL contexts, learners frequently struggle with complicated linguistic patterns and different competence levels; however, AI appears as a valuable ally in speeding learning processes and delivering more engaging, tailored learning experiences (Russell & Norvig, 2016).

Moreover, AI's capacity to evaluate real-time data gives teachers vital insights into student progress, allowing for focused interventions and individualized support (Alam, 2023). AI-powered platforms, such as the Language Hub system, which aims to transform language teaching in vocational colleges, allow educators to personalize learning experiences, track progress, and provide timely feedback (Nguyen et al., 2024).

Several AI-powered tools are now integrated into EFL training, which assists students in developing their language abilities. Some tools, namely Grammarly, Duolingo, and Rosetta Stone, use AI technologies, including natural language processing and machine learning, with a view to providing on-time feedback on grammar, vocabulary, and pronunciation. These technologies respond actively to the learner's input, thereby ensuring optimal levels of challenge and scaffolding (Deng & Yu, 2023).

Furthermore, AI chatbots provide real-time conversational practice, enhancing students' speaking and comprehension skills in practical contexts (Hoang et al., 2023). The research conducted by Pokrivcakova (2019) indicates that AI-powered tools are used effectively to give students formative feedback and practice opportunities outside the classroom, which helps to reinforce their language skills.

Several lines of evidence from the studies of Lelkes et al. (2021) and Khan et al. (2021) suggest that AI-powered tools like GPT-3 are the crucial creators of reading comprehension quizzes (including questions, correct answers and distractors) which significantly reduce the teachers' time and effort. In addition, according to Dijkstra et al. (2022), while early quiz generating models were rule-based, developments in neural and transformer-based techniques have substantially increased the correctness and complexity of questions. This is particularly beneficial in EFL settings, where quizzes provide essential practice for language acquisition. For example, the research of Khan et al. (2021) claims that the EduQuiz model fine-tunes GPT-3 is able to automatically generate high-quality comprehension quizzes so that teachers can focus more on in-class instruction.

Nevertheless, a key challenge in quiz generation is creating plausible distractors or incorrect answers that are close enough to the correct ones to test comprehension effectively. Datasets like EQG-RACE in the study conducted by Dijkstra et al. (2022) help address this problem to improve AI's ability to create quizzes with meaningful distractors. Therefore, AI-driven tools offer a practical solution for teachers to save time while ensuring the value of quizzes (Dijkstra et al., 2022).

Teachers' Perceptions on Using AI-Driven Tools in EFL Education

The academic literature on AI tools in education has revealed that teachers' opinions about technology directly affect how successfully they include AI tools into their teaching strategies (Ertmer et al., 2012; Bowman et al., 2022). Although teachers' uncertainty or a lack of confidence may hinder the AI integration, supportive ones still have positive attitudes toward AI-driven tools that can provide them with more meaningful applications in the classroom.

Moreover, recent research has indicated that teachers appreciate AI tools' time-saving and efficiency-enhancing aspects, such as automated grading, adaptive learning, and formative feedback systems. However, some teachers express concerns about the potential lack of human interaction in AI-supported learning environments, which, according to Rusmiyanto (2023), could prevent students' development of essential interpersonal skills needed for their language proficiency.

The Importance of Reading Skills in EFL Education

Reading is an essential ability in education, especially in English as a Foreign Language (EFL) environments, where students rely on reading to develop language competency. Reading comprehension entails not just identifying words but also building meaning from written words, making it critical for academic performance (Pretorius & Machet, 2004). For non-English majors, reading often serves as a primary way to engage with the language, given that spoken practice may be limited.

Reading comprehension activities are especially useful in the EFL classroom because they expose students to a wide range of linguistic structures, vocabulary, and cultural material (Richards & Rodgers, 2001; Klapwijk, 2012). Furthermore, comprehension tests can be used to check and reinforce previously learned skills. These tests encourage students to interact with the content more deeply, boosting retention and application of new vocabulary, grammatical structures, and general comprehension (Zimmerman et al., 2007).

Reading comprehension quizzes assists students in strengthening their skills by encouraging concentrated reading and active involvement with readings. These quizzes assess students' abilities to extract relevant information, comprehend language in the reading's context, and draw conclusions from the material. However, traditional quiz creation can be time-consuming for teachers, especially when questions must be tailored to students' varied levels of skill (Alam,

2023).

Quillionz as an AI Tool for Question Generation

According to information from the official website of Quillionz, it is an innovative AI-powered platform that streamlines question generation for various educational purposes. With machine learning algorithms, Quillionz allows educators to generate a range of questions, including multiple-choice and open-ended questions, from instructional content in seconds. Its combination with modern natural language processing models such as GPT-4 improves the quality and diversity of the questions generated, which aligns them with learning objectives and caters to a wide range of student demographics. Quillionz also consists of seamless interaction with popular Learning Management Systems (LMS), such as Canvas, as well as the option to export questions in several formats (PDF, DOC, QTI), which makes it easier to use in both online and traditional classrooms.

While Quillionz brings such potential advances in creating questions, more study is needed to determine its impacts on language teaching and learning, especially in EFL environments. Despite the platform's promise to reduce time and improve the quality of reading comprehension quizzes, little research has been conducted to investigate its effectiveness in real-world classroom settings, particularly at vocational schools. Furthermore, there has been a lack of extensive research on teachers' viewpoints on the practical problems and benefits of incorporating AI-driven question generators into their instructional routines for non-English majors. Therefore, this study seeks to address that gap by investigating the teachers' perceptions and attitudes at vocational colleges towards the usage of Quillionz for creating reading comprehension quizzes.

Research Question

The aim of this study is to investigate teachers' perceptions of Quillionz in generating reading comprehension quizzes. Thus, the authors seek to address the following study question:

> *What are English teachers at vocational colleges' perceptions of the effectiveness of Quillionz in generating reading comprehension quizzes for non-English major students?*

Methods

Pedagogical Setting & Participants

The research was conducted in a vocational college in Vietnam, which is known for its commitment to modern technology. The college offers a wide range of programs in this field, such as information technology, software development, digital marketing, and mobile application development. This college focuses on the integration of technology into its learning and teaching environment, where students bring their laptops to class on a regular basis to support their studies. At this college, students are enrolled in a seven-semester program, during which they are requested to complete four levels of English language courses, namely English 1.1, 1.2, 2.1, and 2.2. The curriculum for these courses, tailored based on the American Language Hub by Macmillan Education, is used consistently across the 4 levels to ensure that students build a solid foundation in English and enhance digital literacy skills through technology-integrated instruction.

The study comprised 48 teachers who are in charge of English 1.2 and 2.1 during the Fall semester at this college. The respondents have extensive experience in teaching English, with half of them possessing 2 to 5 years of teaching experience and nearly 30% having 6 to 10 years

of experience, and 15% having less than 1 year of teaching experience. Subsequently, ten teachers were selected in the qualitative phase of the research based on their willingness and availability. This phase involved in-depth interviews for a deeper investigation. For privacy, the identities of teachers will be kept anonymous, with the interviewed participants named T1 to T10.

Data collection & analysis

Data for the research were gathered through two online survey questionnaires utilizing Google Forms (before and after employing Quillionz GPT), and in-depth interviews with ten participants. The questionnaires were adapted from that of Siyam et al. (2022), which assessed teachers' perceptions of AI in education, particularly focused on Perceived Usefulness (PU), Perceived Ease of Use (PEOU), and Behavioral Intention (BI) towards employing AI tools in their teaching. In this study, the survey was modified to concentrate on Quillionz, an AI-powered platform for generating quizzes.

The survey was distributed to 48 participants online. The adapted version included questions regarding teachers' perceptions and experience in using AI tools in their language teaching before and after employing Quillizonz, in addition to Likert-scale items (from strongly disagree to strongly agree) investigating their perspectives towards the use of this platform. The survey comprised two phases: a pre-survey before participants used Quillionz and a post-survey, which mirrored the first to allow direct comparison after a four-week period of using this tool in their classrooms. During the four-week period, teachers were requested to use Quillionz regularly in their lesson planning. Each teacher conducted at least three reading lessons per week according to the curriculum. This consistent exposure allowed participants to thoroughly test the platform, generating a variety of reading comprehension quizzes. After collecting information via two surveys, a paired sample T-test will be used to compare the results from the pre- and post-surveys, determining whether there was a statistically significant enhancement in teachers' perspectives of Quillionz regarding efficiency, ease of use, and the variety and quality of the quizzes created. Eventually, in-depth interviews were carried out to gain deeper insights into teachers' experience in using Quillionz. There were 4 interview questions, lasting approximately 5-7 minutes for each to further explore detailed experiences, challenges, and suggestions for improvement after the utilization of Quillionz.

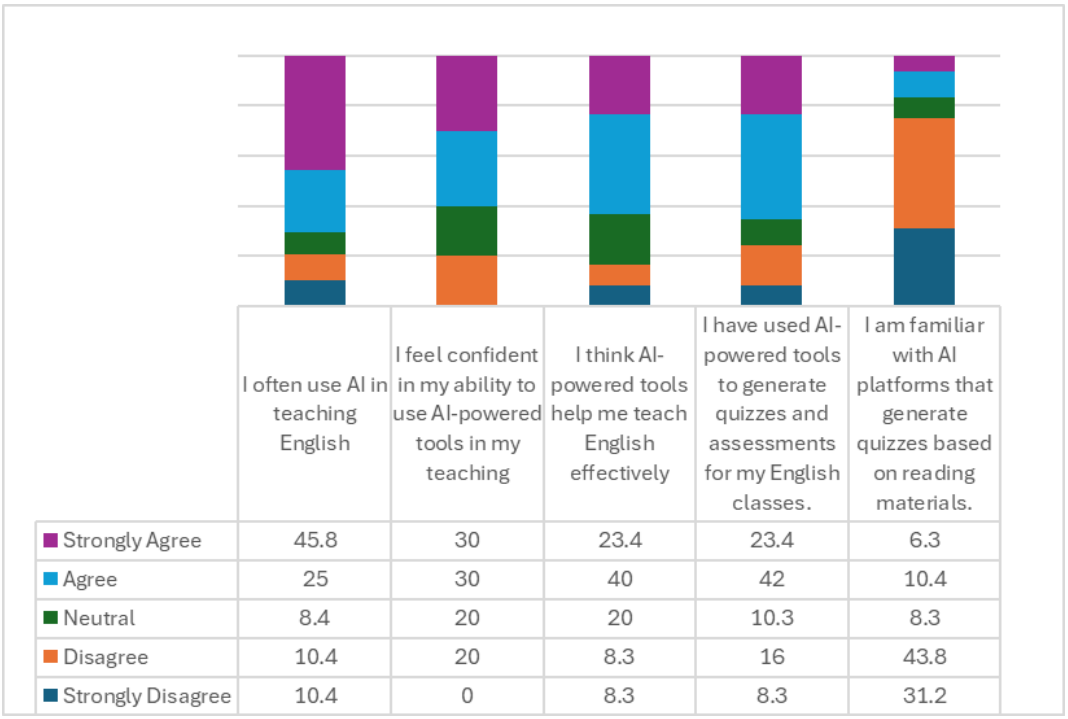
For data analysis, statistical methods were utilized. Mean scores and standard deviations were computed to summarize the responses collected from the pre- and post-intervention surveys. Furthermore, paired sample t-tests were conducted to compare pre- and post-intervention responses. These statistical tests allowed for the evaluation of any significant changes in teachers' perspectives and experiences related to Quillionz after the integration. Following this, a paired sample T-test was conducted to compare participants' perceptions before and after using Quillionz. The data were presented in tables to represent the findings visually. In relation to the qualitative phase, the interviews were recorded and transcribed thoroughly using an intelligent verbatim transcription protocol, which allows the author to note down only meaningful and relevant sentences. The researcher employed thematic analysis to examine their responses, classified them into main themes, and then wrote down the report. The insights obtained from these interviews were analyzed thematically and used to contextualize the results of the paired sample T-test, offering a richer interpretation of the data.

Findings and discussion

Teachers' perceptions and experience in using AI to generate questions

Figure 1

Teachers' perceptions and experience in using AI to generate questions



	I often use AI in teaching English	I feel confident in my ability to use AI-powered tools in my teaching	I think AI-powered tools help me teach English effectively	I have used AI-powered tools to generate quizzes and assessments for my English classes.	I am familiar with AI platforms that generate quizzes based on reading materials.
Strongly Agree	45.8	30	23.4	23.4	6.3
Agree	25	30	40	42	10.4
Neutral	8.4	20	20	10.3	8.3
Disagree	10.4	20	8.3	16	43.8
Strongly Disagree	10.4	0	8.3	8.3	31.2

Figure 1 provides insights into teachers' perceptions and experiences about the utilization of AI tools in teaching English, particularly in generating quizzes and assessments. When asked whether they regularly apply AI in their teaching practices, a significant number of teachers (70%) reported using AI, highlighting that teachers are taking advantage of AI tools to diversify and enhance their English lessons. However, 18.2% expressed an opposite opinion. This finding bears a resemblance with that of Lelkes et al. (2021), who underscored a growing usage of AI in classroom settings. Additionally, research conducted by Khan et al. (2021) pointed out that while AI adoption has been increasing, factors like lack of familiarity or complexity hinder wider employment.

Regarding teachers' confidence in adopting AI tools, most participants (60%) expressed confidence in integrating AI in teaching English, while 20% remained neutral and 20% felt uncertain about their ability to use AI. These findings suggest that while a large portion of teachers are familiar with AI adoption, a notable portion may require additional support or training to better enhance their confidence in utilizing AI in teaching. These results are consistent with those of the interview section, in which teachers were asked if they faced any difficulties in using AI (question 1). Several challenges were reported, including the complexity of some AI tools, a lack of training, time constraints, and technical issues. Some teachers stated that they attempted to use some tools to generate quizzes or create slides but the interface is not user-friendly and it took them a lot of time to get used to it, so they abandoned them. (T3, 5, and 7) When asked about the effectiveness of AI-powered tools in teaching English, a significant portion of surveyed teachers agreed that AI helps them teach English efficiently. This aligns with the broader literature, which supports the ideas that teaching and learning English has become easier with the development of technology and digital platforms (Shin,

2018). Ribeiro (2020) claims that applying Artificial Intelligence in English Language Teaching (ELT) is the most practical way for teaching English.

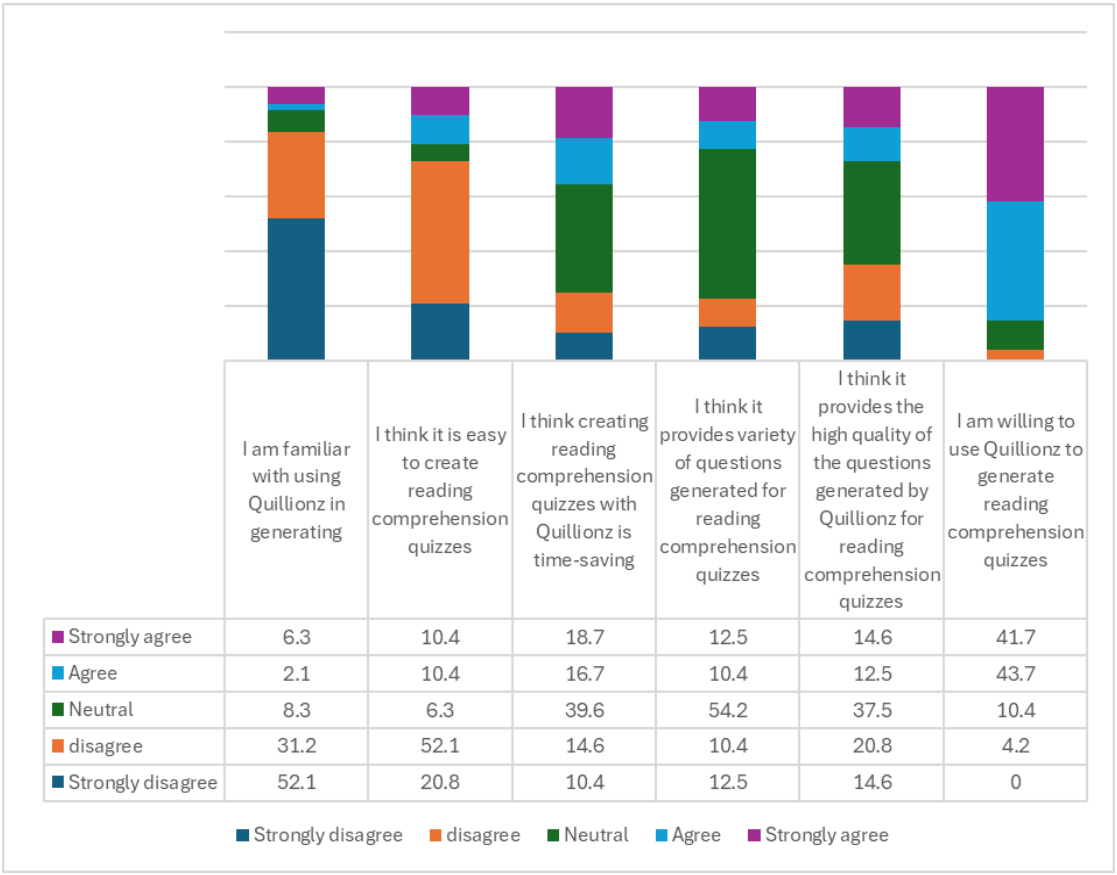
The result was different regarding the use of AI in generating quizzes in general and reading quizzes in particular. As can be seen in Figure 1, while 65% of participants indicated using AI for creating quizzes and for assessment, only 16.7% reported using AI platforms for general reading quizzes. When interviewed (question number 2), teachers expressed that they frequently used AI to generate grammar and vocabulary quizzes rather than reading quizzes due to the time-consuming nature of creating reading quizzes and the lack of available reading resources on AI platforms. These results are in accord with recent studies indicating that teachers tend to apply AI tools to generate straightforward question types such as grammar and vocabulary quizzes, which require less contextual understanding compared to reading questions (Lelkes et al., 2021; Wang et al., 2023)

Teachers' perceptions towards Quillionz before the integration

Figure 2 illustrates teachers' perspectives of Quillionz before 4-week integration.

Figure 2

Teachers' perceptions towards Quillionz before the integration



One interesting finding is that a remarkable portion of respondents (84%) expressed their unfamiliarity with using Quillionz to create reading quizzes. Only 8.4% agreed that they are familiar with the tool, indicating a significant lack of awareness or experience in using this tool among teachers. The lack of experience could explain some of the hesitations and neutral responses among respondents throughout the pre survey. Furthermore, when asked whether it was easy to create reading quizzes or not, a substantial 73% of respondents claimed that creating

reading questions is challenging, while only 10% view it positively.

Regarding whether Quillionz helps teachers save time, nearly 40% remained unsure, while 35% expressed their agreement, and 25% of respondents strongly disagreed with the statement, indicating a potential gap in perceived and actual efficiency of the tool. Additionally, in terms of the variety and quality of questions generated by Quillionz, there is considerable uncertainty among surveyed teachers. Specifically, more than half of respondents feel unsure about the diversity of quizzes designed by Quillionz, while 23% believe it provided various questions. Similarly, many teachers remain doubtful about the quality of questions since nearly 38% remain undecided and 35% do not believe that Quillionz generates high-quality reading questions. However, a positive trend is still emerging in the willingness to use Quillionz. A striking 85% of respondents expressed their willingness to adopt the tool, while only 10% remained neutral, indicating that in spite of some hesitations around the familiarity and effectiveness of Quillionz, teachers are open to employing new tools to enhance their teaching.

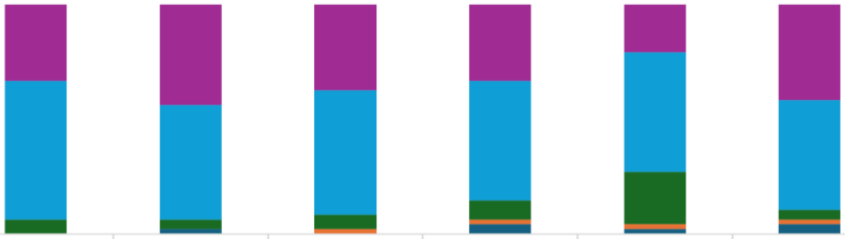
In conclusion, while data show a strong willingness to use Quillionz in English reading lessons among surveyed teachers, unfamiliarity with the new platform may be a barrier, leading to the uncertainty about the quantity and quality of questions generated automatically by Quillionz as well as its overall efficiency in teaching. These results corroborate the findings of McNulty (2023), which highlights that teachers often express doubt about the actual benefits gained from AI technology before using it. Lelkes et al. (2021) also noted that teachers do not completely trust the quality of AI-generated content until they consistently experience positive outcomes.

Despite initial concerns about the effectiveness of Quillionz, teachers expressed a collective willingness to try this AI platform, suggesting its potential positive impacts on their pedagogical practices. Previous studies have also noted that teachers are open to try different AI tools when they recognize their potential benefits for reducing workload and increasing their lessons' quality, despite initially facing challenges, such as lack of familiarity and training, or technical issues (Kaplan-Rakowski et al., 2023; Perrotta & Selwyn, 2020).

Teachers' perceptions towards Quillionz after the intervention

Figure 3

Teachers' perceptions towards Quillionz after the integration



	1. I am familiar with using Quillionz in generating.	2. I think it is easy to create reading comprehension quizzes.	3. I think creating reading comprehension quizzes with Quillionz is time-saving.	4. I think it provides variety of questions generated for reading comprehension quizzes.	5. I think it provides the high quality of the questions generated by Quillionz for reading comprehension quizzes.	6. I am willing to use Quillionz to generate reading comprehesion quizzes.
strongly agree	33.3%	43.7%	37.4%	33.3%	20.8%	41.6%
agree	60.4%	50.0%	54.2%	52.1%	52.1%	47.9%
neutral	6.3%	4.2%	6.3%	8.3%	22.9%	4.2%
disagree	0.0%	0.0%	2.1%	2.1%	2.1%	2.1%
strongly disagree	0.0%	2.1%	0.0%	4.2%	2.1%	4.2%

As shown in Figure 3, the vast majority of teachers, who were familiar with Quillionz, account for 60.4% agreeing and 33.3% strongly agreeing that they have used it to make quizzes before. Surprisingly, no one disagreed or strongly disagreed with the statement. This high degree of familiarity suggests that teachers had ample exposure to Quillionz throughout the intervention, consistent with previous research that indicates hands-on experience enhances confidence in using AI tools (Bowman et al., 2022). The absence of negative responses indicates that Quillionz is generally intuitive and accessible for educators, even for those with limited prior AI experience.

Figure 3 also depicts the ease of utilizing Quillionz. While 93.7% of teachers both agreed and strongly agreed that it was simple to design reading comprehension quizzes with Quillionz, only 4.2% were neutral and 2.1% strongly disapproved. These positive findings demonstrate Quillionz's ability to streamline the quiz design process, which is consistent with the findings of Khan et al. (2021) and Alam (2023), who highlighted the significance of AI in lowering educators' workloads. The minimal disagreement suggests that while the platform meets the needs of most users, a small fraction may encounter challenges, potentially linked to preferences for more manual control or technical difficulties.

What stands out from the data from the above figure is that there is a huge potential of Quillionz in reducing quiz generation time for teachers, with approximately 92% agreeing and strongly agreeing that the platform helped save time in generating quizzes. This finding not only supports AI's ability to automate quiz creation but also aligns with the research of Dijkstra et al. (2022), who noted that AI-driven platforms accelerate the processes of generating quizzes and reduce teachers' burden.

The most striking result that emerges from the data is the variety of questions generated by Quillionz. Nearly 86% of teachers agree and strongly agree that the platform offers varied kinds of questions for reading comprehension quizzes. This positive result expresses Quillionz's ability to offer an adequate range of question types, which is consistent with previous findings by Alam (2023), who claimed that AI tools can generate a wide range of learning assessments. Nevertheless, there is still a small proportion of disagreement (more than 10%), which indicates that regarding complicated comprehension topics, the platform's algorithms may not fully capture the depth required, as similarly noted in the research of Khan et al. (2021).

Furthermore, a significant percentage, approximately 73%, of participants reported in the survey that the questions generated by Quillionz were of high quality. Although a majority of teachers found the quality of questions satisfactory, the relatively high percentage of neutrality (22.9%) indicates that some educators still have reservations about the quality of AI-generated questions. These results reflect concerns of Khan et al. (2021) and Dijkstra et al. (2022), who both also confirmed that teachers expressed doubts about the accuracy and contextual relevance of AI-generated content, particularly for complex reading comprehension tasks. While Quillionz performs well in producing basic and intermediate questions, there may be limitations in generating more sophisticated, higher-order thinking questions, leading to this split in teacher perceptions.

The above findings are consistent with those from the research interview, which underscores the advantages teachers obtain from Quillionz. One of the major benefits noted by almost all participants was the time-saving potential of Quillionz. Several teachers, including T1 and T6, expressed that once they became familiar with the platform, it helped significantly reduce the amount of time spent on quiz creation. They no longer needed to manually design quizzes, which allowed them to focus on other instructional tasks. T8 mentioned that Quillionz was especially useful for quickly generating a variety of reading comprehension questions, which

would typically take much longer if done manually. Thus, the benefit indicates that Quillionz's automation feature was a key advantage for many users. Another highlighted benefit was the diversity of questions that Quillionz was able to generate. Several participants (T2, T7, and T9) appreciated the wide range of question formats, which helped to maintain students' engagement by offering different types of comprehension challenges. As T4 stated, "The various types of questions allowed me to create the quizzes suitable for different reading levels without having to regenerate entire sets of questions from scratch."

It can finally be seen from the data that after four weeks of utilization of Quillionz, most teachers, almost 90%, viewed the platform as a beneficial addition to their teaching practices and agreed to continue using it for quiz generation in the future. These positive results indicate that most teachers found Quillionz valuable, which supports Alam's (2023) conclusion that AI tools offering ease of use and time-saving benefits generally result in higher adoption rates. However, the small percentage of resistance suggests that a minority of teachers may have encountered obstacles.

Changes in perceptions towards Quillionz usage for generating reading quizzes before and after the integration

Table 1.

Paired sample t-test results related to teachers' perceptions towards utilizing Quillionz to create reading comprehension questions

Variables	Mean diff	t	df	cv
1. I am familiar with using Quillionz in generating	2.48	15.60	47	2.01
2. I think it is easy to create reading comprehension quizzes	1.96	10.52	47	2.01
3. I think creating reading comprehension quizzes with Quillionz is time-saving	1.08	8.11	47	2.01
4. I think it provides variety of questions generated for reading comprehension quizzes	1.08	6.67	47	2.01
5. I think it provides the high quality of the questions generated by Quillionz for reading comprehension quizzes	0.96	6.50	47	2.01
6. I am willing to use Quillionz to generate reading comprehension quizzes	-0.02	0.18	47	2.01

The paired sample t-tests demonstrate significant improvements in several areas of teachers' perceptions toward Quillionz after the intervention.

In terms of familiarity with Quillionz, the paired sample t-test showed a notable increase, with a mean difference of 2.48 and a t-value of 15.60. This indicates that teachers became much more familiar with the tool after using it, which moved from initial uncertainty to a higher comfort level. Likewise, the impression of ease in constructing reading comprehension questions improved dramatically, with a mean difference of 1.96 and a t-value of 10.52. This

implies that after teachers had actual Quillionz experience, they found it simpler to create quizzes.

Moreover, Quillionz's time-saving ability received a positive change. Teachers' rising awareness of the tool's efficiency in producing quizzes, which was the main factor behind Quillionz's general appeal, is showcased via the mean difference of 1.08 and a t-value of 8.11. Also, teachers observed a change in the question variety that suggested growing confidence in Quillionz's ability to offer diverse quiz content, proved by a mean difference of 1.08 and a t-value of 6.67. It is, furthermore, worth noting that there were improvements in teachers' perspectives of the question quality, as indicated by a mean difference of 0.96 and a t-value of 6.50. Teachers, first dubious though, grew more confident in the tool's ability to create high-quality comprehension quizzes.

Interestingly, although most areas saw notable positive changes, teachers' inclination to continue using Quillionz remained constant, with a mean difference of -0.02 and a t-value of 0.18, demonstrating no significant change. This implies that teachers were already eager to use the tool before the intervention, and this favorable attitude remained consistent afterward.

In conclusion, it is evident that participants expressed a positive change in their perceptions towards utilizing Quillionz to generate reading comprehension quizzes. These results corroborate the findings of a great deal of the previous work by Duong et al. (2024), Chen et al. (2022) and Nguyen (2024), which demonstrated teachers' growing acceptance of AI tools in educational contexts. Similarly, this study highlights the potential of Quillionz to streamline the quiz creation process, particularly for non-English major students, while enhancing the variety and quality of questions generated by Quillionz.

Besides, the significant improvements in teachers' familiarity, ease of use, and time-saving perceptions contribute to expanding research on AI-driven tools in EFL. This research only examines the value of integrating Quillionz into creating reading comprehension activities. Future research could explore the long-term impacts of using AI-based tools like Quillionz on quiz design efficiency and student learning outcomes to provide valuable insights for educators aiming to optimize instructional strategies through technology integration.

Teachers' challenges and recommendations

Findings from interviews revealed several drawbacks of Quillionz and some recommendations for users and the developers of this website as well. Two main challenges highlighted by teachers included lack of customization options, limited control over question quality, and interface complexity. While the tool could generate a wide range of questions, some teachers (T3, T5, and T9) still need to modify the questions to suit their specific classroom needs. T9 explained, "Although Quillionz is useful, I still have to spend time adjusting the questions to align with my lesson objectives." T7 and T10 expressed their concerns about the quality of questions since some questions need to be reviewed and edited.

As noted by T8, while Quillionz can generate lots of questions automatically after inputting the reading materials, not all questions are perfect. Some need to be modified manually to align with the reading objectives. One obstacle teachers encountered during the integration was technical problems, which caused frustration, especially when teachers were pressed for time. T5 mentioned, "There was one time when I nearly finished my set of quizzes, then the system suddenly froze, and I had to restart the whole process. I was really stressed." This problem was also experienced twice by T7. Though not often, these technical issues might negatively affect teachers' overall experience.

Additionally, teachers also provided a set of recommendations on Quillionz's improvement,

with the primary focus on its functionality and usability. One principal suggestion was that Quillionz developers should offer more customization options. As mentioned by some interviewees, Quillionz should provide various question types at different difficulty levels and with diverse content focus to better align with teachers' curriculum needs. Furthermore, teachers suggested that the website incorporate more online games to diversify lessons and engage students in reading activities. Several participants also recommended that, to make this platform easier to use, tutorials or instructions should be included. They suggest that website developers implement a feature where the tutorials automatically pop up when users access the website, making it approachable for all teachers. These suggestions are consistent with those of previous studies, such as Kaplan-Rakowski and Grotewold (2023), which highlight the significance of training and assistance when introducing new technologies in educational settings.

Conclusion

In conclusion, our study emphasizes the notable changes in teachers' perspectives of utilizing online quiz-generating platform Quillionz in their English reading lessons before and after a 4-week integration. Several benefits of this AI were recognized by most of the surveyed teachers, including saving time in creating quizzes, engaging students into reading exercises thanks to the available games on the platform, and offering various questions in a short time. While the majority of Quillionz-created quizzes are reasonable, some are irrelevant and need to be modified, and the quality is sometimes lower than human-generated quizzes. Besides, challenges such as limited customization options or technical issues were also reported. Additionally, teachers proposed some recommendations, including the addition of online games or tutorial features, to develop this AI platform better.

Although our results are encouraging, the study still has some limitations due to its small sample size in a short time and reading comprehension focus, which might not capture the long-term perceptions and effectiveness of Quillionz. Therefore, future research is suggested to assess long-term effects and explore the impact of Quillionz on students' outcomes, as well as compare it with other AI tools to identify its unique strengths and areas for improvement. Research on utilizing Quillionz for broader assessment or investigating student's perspectives is also recommended.

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