

Students' Needs, Perceptions, and Challenges in AI-Supported Pre-Speaking Preparation

Meidy Kautsar Arriv¹, Fadliyah Uzma²

^{1,2}English Language Education, UIN Syarif Hidayatullah Jakarta

Article Info	Abstract
Received: 2026-05-09 Revised: 2026-05-30 Accepted: 2026-06-05 Keywords: <i>Artificial Intelligence; EFL Student Learner Scaffolding; Pre-Speaking Activities</i> DOI: 10.24256/ideas.v14i1.10500 Corresponding Author: Meidy Kautsar Arriv meidykautsar@gmail.com	<i>Pre-speaking preparation enables English as a foreign language (EFL) learners to plan ideas, select vocabulary, and manage confidence before oral performance. This study explored Grade 9 students' needs, perceptions, and challenges regarding the use of artificial intelligence (AI)-based tools during pre-speaking preparation. A descriptive qualitative design was employed with 19 students in one class at a school in Bekasi. Data were collected through a 15-item five-point Likert-scale questionnaire, classroom observations, and interviews with two students. Questionnaire responses were summarized using percentages, while the interview and observation data were used to support interpretation. The findings showed that 80%-85% of the students agreed that they needed additional preparation time, help organizing ideas, vocabulary support, and more practice opportunities. Between 85% and 90% viewed AI positively for idea generation, vocabulary development, content organization, confidence, and practice before class. However, 55% found some AI-generated answers difficult to understand, and 80% still emphasized the need for teacher guidance. The interviews also identified slow internet connectivity and responses that did not always match students' expectations. AI can therefore function as a complementary scaffold in pre-speaking preparation, but its use should remain teacher-guided and appropriate to learners' language level.</i>

1. Introduction

Speaking tasks in English as a foreign language (EFL) classrooms commonly require a period of preparation before learners perform a presentation, monologue, dialogue, or role-play. During this pre-speaking stage, learners generate ideas, select appropriate words, organize content, and rehearse what they intend to say (Thornbury, 2005). These activities are closely connected to the processes of

conceptualization and linguistic formulation described by Levelt (1989). When preparation is limited, learners must manage ideas, vocabulary, grammar, pronunciation, and audience awareness at the same time, which may increase cognitive pressure and reduce fluency.

Pre-task planning is therefore an important component of speaking instruction. Skehan (2007) explains that planning can reduce processing demands and allow learners to allocate more attention to language production. Adequate preparation may also improve learners' readiness and confidence because they have time to clarify their message before speaking publicly (Brown, 2015). In classroom practice, students traditionally use notebooks, textbooks, printed dictionaries, or teacher-provided models during this stage. Digital resources have expanded these options by providing rapid access to vocabulary, examples, translations, and models of language use.

Artificial intelligence (AI)-based tools have become increasingly accessible to secondary-school learners. Such tools can generate ideas, suggest vocabulary, reorganize text, explain grammar, and provide models that students can review before speaking. Research on AI-assisted language learning has generally reported positive effects on achievement and learner support (Xu & Wang, 2024). Studies involving young learners also suggest that AI can increase engagement and provide additional learning opportunities, although the quality of support depends on learners' age, language proficiency, and the guidance provided by adults (Fahkrunisa et al., 2025; Kristi Pramudika Sari et al., 2025; Sun et al., 2025).

Previous studies have examined AI applications for different language skills and learning purposes. Chen (2023) discussed AI-assisted applications such as HelloTalk and Duolingo, while Yuniar et al. (2026) examined Duolingo for vocabulary learning. In writing, AI tools have been used to generate ideas, improve grammatical accuracy, and support revision (Losi et al., 2024; Syarifah & Fakhruddin, 2024). Li and Wilson (2025) further showed that AI-integrated scaffolding can support agency, creativity, and self-regulation in K-12 English language learning. These studies indicate that AI may serve as a scaffold, but they do not fully explain how younger EFL learners use AI during the limited preparation period immediately before classroom speaking.

Research on speaking has often focused on conversational AI that acts as an interactive partner, offers corrective feedback, or creates repeated opportunities for oral practice (Ericsson & Johansson, 2023; Fathi et al., 2024; Tiana et al., 2025). Indonesian ELT research likewise demonstrates the value of structured, technology-supported learning activities for engagement, vocabulary work, and speaking practice (Masruddin, 2014, 2018; Nasriandi & Masruddin, 2021; Masruddin et al., 2024; Nurpita et al., 2025). Related work by Masruddin and Munawir (2022) also illustrates how a structured learning activity can support vocabulary development among junior high school students. Nevertheless, these studies emphasize full learning activities, interactive practice, or instructional

interventions rather than students' needs when AI is used specifically to prepare ideas and language before a speaking performance.

This distinction is pedagogically important. AI-generated text should not replace students' own oral production or become a script that is read without understanding. Instead, AI may be more appropriately positioned as a temporary support that helps learners explore possible ideas, vocabulary, and organization before they express the message in their own words. Teachers also remain responsible for helping students evaluate the accuracy, appropriateness, and difficulty of AI-generated responses. Understanding students' needs and challenges at this stage can help teachers design clearer guidance and prevent excessive dependence on automated output.

2. Method

This study employed a descriptive qualitative design to examine students' reported needs, perceptions, and challenges. It was conducted in one Grade 9 class at a school in Bekasi. The class had previously completed a monologue activity in which the teacher required students to undertake pre-speaking preparation. This prior classroom experience provided the immediate context for investigating how students used and evaluated AI-based support before speaking.

The participants were all 19 students in the Grade 9 class. All students completed the questionnaire. Two students were subsequently interviewed to provide supporting explanations of the questionnaire patterns. The study therefore used the entire class for the questionnaire and a smaller interview sample for qualitative elaboration.

Three sources of data were used: a questionnaire, interviews, and classroom observations. The questionnaire contained 15 statements organized around students' preparation needs, perceptions of AI support, challenges in using AI, confidence, and the continuing role of teacher guidance. It used five response categories: Strongly Agree, Agree, Neutral, Disagree, and Strongly Disagree. The questionnaire was distributed online through Google Forms and served as the primary data source. Classroom observations were conducted before and after the questionnaire administration to document students' English learning and pre-speaking activities. Interviews with two students were conducted after the questionnaire had been completed.

Questionnaire responses were summarized as percentages for each of the five response categories. The results were then organized according to the three research questions: students' needs, students' perceptions, and students' challenges. Interview and observation data were used to explain and support the questionnaire patterns. The use of three data sources provided methodological triangulation by comparing self-reported responses with interview explanations and classroom observations.

3. Result

The findings are presented according to the three research questions. Table 1 reports the complete distribution of questionnaire responses provided in the original manuscript.

Table 1. Distribution of Students' Responses on AI-Supported Pre-Speaking Preparation

No.	Statement	SA	A	N	D	SD
1	Need more time to prepare speaking with AI	55%	30%	10%	5%	0%
2	Need help organizing ideas using AI	50%	35%	10%	5%	0%
3	Need vocabulary support using AI	45%	35%	15%	5%	0%
4	Need more practice opportunities using AI	50%	30%	10%	10%	0%
5	AI helps prepare ideas	60%	30%	5%	5%	0%
6	AI improves vocabulary	60%	30%	5%	5%	0%
7	AI helps organize speaking content	55%	30%	10%	5%	0%
8	Difficulty using AI	20%	20%	20%	25%	15%
9	Do not know how to use AI effectively	20%	25%	20%	25%	10%
10	Technical problems using AI	15%	25%	20%	30%	10%
11	AI answers are difficult to understand	25%	30%	20%	20%	5%
12	Need guidance to improve confidence	50%	30%	10%	10%	0%
13	AI increases confidence	55%	30%	10%	5%	0%
14	AI is useful for practice before class	60%	25%	10%	5%	0%
15	Still need teacher guidance more than AI	55%	25%	10%	10%	0%

The first four questionnaire items examined the support students believed they needed before speaking. A combined 85% agreed or strongly agreed that they needed more preparation time with AI (Item 1) and help organizing ideas (Item 2). Vocabulary support was also considered important, with 80% agreement (Item 3). Similarly, 80% agreed that they needed more opportunities to practice with AI before performing (Item 4). Across these four items, positive responses ranged from 80% to 85%, indicating that students primarily needed support for time, idea organization, vocabulary, and rehearsal.

Students generally perceived AI as useful during preparation. Ninety percent agreed that AI helped them prepare ideas (Item 5) and improve vocabulary (Item 6). Eighty-five percent agreed that AI helped organize speaking content (Item 7), increased confidence (Item 13), and was useful for practice before class (Item 14). The consistency of these responses suggests that students valued AI for both linguistic preparation and affective support. The interviews supported this pattern: the two interviewed students reported using AI to find vocabulary, organize content, and improve grammatical accuracy. They also associated this preparation with greater confidence and greater ease in completing speaking-related learning

activities.

Responses to the challenge items were more varied. Forty percent agreed that they experienced difficulty using AI (Item 8), while 45% agreed that they did not know how to use AI effectively (Item 9). Technical problems were reported by 40% of the students (Item 10), whereas 55% agreed that AI-generated answers were difficult to understand (Item 11). The difficulty of understanding the output was therefore a more prominent concern than technical access. Teacher support remained central: 80% agreed that they needed guidance to improve confidence (Item 12), and 80% stated that they still needed teacher guidance more than AI assistance (Item 15). Interview responses reinforced these findings. The students mentioned slow internet connectivity and AI-generated responses that did not always match their expectations, while also emphasizing that AI could not replace teachers' instructional guidance.

4. Discussion

The findings indicate that Grade 9 students viewed AI-based tools as useful but incomplete support during pre-speaking preparation. Their strongest needs concerned preparation time, idea organization, vocabulary, and rehearsal. These needs are consistent with models of speech production in which speakers must conceptualize a message and formulate appropriate language before articulation (Levelt, 1989). They also support Skehan's (2007) argument that pre-task planning can reduce processing pressure. AI appears to be valued because it can make several planning resources available quickly; however, the present study investigated perceptions and needs rather than directly measured gains in speaking performance.

Students' positive responses to idea generation, vocabulary development, and content organization can be interpreted through the concept of scaffolding. From a sociocultural perspective, external support can help learners perform tasks that would be more difficult without assistance (Vygotsky, 1978). AI may act as a mediating resource by offering possible words, structures, or organizational patterns. This interpretation is consistent with the broader literature on AI-integrated scaffolding (Li & Wilson, 2025) and AI-supported writing, where learners use automated tools for idea generation and language correction (Losi et al., 2024; Syarifah & Fakhruddin, 2024). Nevertheless, scaffolding is effective only when learners understand, evaluate, and gradually internalize the support rather than reproduce it mechanically.

The findings also connect with research on technology-supported English learning in Indonesia. Masruddin (2014) emphasized the pedagogical value of technology when it is integrated purposefully. Research on short video and debate-based instruction has similarly shown the importance of structured opportunities for speaking practice (Masruddin, 2018; Nasriandi & Masruddin, 2021). Masruddin et al. (2024) highlighted engagement through repeated instruction and direct

feedback, while Nurpita et al. (2025) demonstrated the motivational value of a web-based vocabulary activity. In a junior high school context, Masruddin and Munawir (2022) also showed that a structured learning activity can facilitate vocabulary development. Although these studies used different tools and designs, they collectively support the principle that technology is most useful when it is embedded in a clear pedagogical sequence rather than used without instructional direction.

Confidence was another important aspect of students' perceptions. Most students believed that AI increased confidence and was useful for private practice before class. The opportunity to prepare without immediate public evaluation may reduce pressure and allow learners to rehearse at their own pace. This interpretation is consistent with Dörnyei's (2006) emphasis on motivation and self-confidence in language learning and with Little's (1991) view of learner autonomy. AI can extend opportunities for self-directed preparation beyond the classroom. However, autonomy does not mean the absence of teacher support; rather, learners need guidance to use resources responsibly and make informed decisions about the language they adopt.

The challenge data demonstrate why teacher mediation remains necessary. More than half of the students found some AI-generated answers difficult to understand, and the interviews indicated that responses did not always match students' expectations. This pattern suggests a possible mismatch between generated language and Grade 9 learners' proficiency or prompting ability. The finding that 80% still preferred substantial teacher guidance confirms that students did not view AI as a replacement for the teacher. Teachers are needed to clarify difficult output, model appropriate language, provide emotional encouragement, and determine whether generated content is suitable for the task (Puskás, 2017). AI should therefore be positioned as a complementary planning resource within teacher-guided speaking instruction.

Several limitations should be considered. The study involved one class of 19 students in one school, and only two students were interviewed. The questionnaire captured self-reported perceptions, while the study did not include a direct assessment of speaking improvement or a comparison group. The specific AI tools used by students were also not identified in the manuscript. These limitations restrict the transferability of the findings and mean that the results should be interpreted as a description of students' needs and experiences in this particular classroom, not as evidence that AI independently improves speaking proficiency

5. Conclusion

This study found that Grade 9 students generally perceived AI-based tools as useful during pre-speaking preparation. Most students reported needing additional preparation time, support for organizing ideas, vocabulary assistance, and opportunities to practice. They also viewed AI positively for generating ideas,

developing vocabulary, organizing content, and increasing confidence before classroom speaking. These findings indicate that AI can provide accessible support during the planning stage of oral tasks.

At the same time, AI support was not sufficient on its own. Students reported difficulty understanding some AI-generated responses, and interview data identified slow internet connectivity and outputs that did not always meet expectations. Most students continued to emphasize the need for teacher guidance. The study therefore concludes that AI should be integrated as a complementary scaffold rather than a substitute for teacher instruction. Its value depends on purposeful tasks, language-level appropriateness, and continued teacher mediation.

6. References

- Brown, H. D. (2015). *Teaching by principles: An interactive approach to language pedagogy*. Pearson Longman.
- Chen, T. (2023). Empirical analysis of the application of artificial intelligence-assisted language learning in improving second-language ability: HelloTalk and Duolingo as examples (pp. 230-235). https://doi.org/10.2991/978-2-38476-146-3_26
- Dörnyei, Z. (2006). *Motivational strategies in the language classroom*. Cambridge University Press.
- Ericsson, E., & Johansson, S. (2023). English speaking practice with conversational AI: Lower secondary students' educational experiences over time. *Computers and Education: Artificial Intelligence*, 5, 100164. <https://doi.org/10.1016/j.caeai.2023.100164>
- Fahkrunisa, L., Sulistiawati, I., & M, R. (2025). Children's interaction with AI technology and its impact on language acquisition in the digitalization era. *IJEE (Indonesian Journal of English Education)*, 12(2). <https://doi.org/10.15408/ijee.v12i2.48667>
- Fathi, J., Rahimi, M., & Derakhshan, A. (2024). Improving EFL learners' speaking skills and willingness to communicate via artificial intelligence-mediated interactions. *System*, 121, 103254. <https://doi.org/10.1016/j.system.2024.103254>
- Kristi Pramudika Sari, A., Fajrul Falah, I., Lia Yulianengsih, N., & Fisa Al Iqbal, M. (2025). Reimagining English learning with artificial intelligence: Boosting engagement and achievement in young learners. *Journal of Education and Teaching (JET)*, 7(1), 49-60. <https://doi.org/10.51454/jet.v7i1.752>
- Levelt, W. J. M. (1989). *Speaking: From intention to articulation*. MIT Press.
- Li, M., & Wilson, J. (2025). AI-integrated scaffolding to enhance agency and creativity in K-12 English language learners: A systematic review. *Information*, 16(7), 519. <https://doi.org/10.3390/info16070519>

- Little, D. G. (1991). Learner autonomy 1: Definitions, issues and problems. Authentik Language Learning Resources.
- Losi, R. V., Putra, E. P., Ali, N., & Dewi, A. S. (2024). Using artificial intelligence (AI) to improve EFL students' writing skill. *International Journal of English and Applied Linguistics*, 4(1), 62-70. <https://doi.org/10.47709/ijeal.v4i1.3694>
- Masruddin, M. (2014). The importance of using technology in English teaching and learning. *IDEAS: Journal on English Language Teaching and Learning, Linguistics and Literature*, 2(2), 1-14. <https://doi.org/10.24256/ideas.v2i2.36>
- Masruddin, M. (2018). The efficacy of using short video through group work in teaching speaking to Indonesian English as foreign language (EFL) students. *Arab World English Journal*, 9(3), 282-293. <https://doi.org/10.24093/awej/vol9no3.19>
- Masruddin, M., Hartina, S., Arifin, M. A., & Langaji, A. (2024). Flipped learning: Facilitating student engagement through repeated instruction and direct feedback. *Cogent Education*, 11(1), 2412500. <https://doi.org/10.1080/2331186X.2024.2412500>
- Masruddin, M., & Munawir, A. (2022). The efficacy of Treasure Hunt Game with Luwu local culture based in teaching English vocabulary and introducing cultures heritages of Luwu at SMPIT Al Hafidz Kota Palopo. *Kongres Internasional Masyarakat Linguistik Indonesia*, 204-208. <https://doi.org/10.51817/kimli.vi.51>
- Nasriandi, N., & Masruddin, M. (2021). The use of British Parliamentary debate style in teaching speaking skill. *IDEAS: Journal on English Language Teaching and Learning, Linguistics and Literature*, 9(1), 572-588. <https://doi.org/10.24256/ideas.v9i1.2073>
- Nurpita, Rustan, E., Masruddin, M., & Wisran. (2025). Developing a web-based mobile game to enhance students' motivation in learning English vocabulary. *IDEAS: Journal on English Language Teaching and Learning, Linguistics and Literature*, 13(1), 46-73. <https://doi.org/10.24256/ideas.v13i1.5541>
- Puskás, A. (2017). Assessing young learners in the English language classroom. *Belvedere Meridionale*.
- Siahaan, S., & Situmeang, S. A. (2024). Teaching: Speaking, writing, listening, reading. RCI Press. www.rcipress.rcipublisher.org
- Skehan, P. (2007). A cognitive approach to language learning. Oxford University Press.
- Sun, H., Tan, J., & Lim, M. C. (2025). AI and early language learning: A scoping review. *AI, Brain and Child*, 1(1), 4. <https://doi.org/10.1007/s44436-025-00005-3>
- Syarifah, E. F., & Fakhruddin, A. (2024). Exploring students' experience in using AI to assist their writing. *Journal of English Language Learning*, 8(1), 558-564. <https://doi.org/10.31949/jell.v8i1.10028>

- Thornbury, S. (2005). *How to teach speaking*. Longman.
- Tiana, D. M., Hastuti, D. P., & Rahayuningsih, R. (2025). The future speaks: Exploring artificial intelligence's impact on EFL students' speaking skills. *IDEAS: Journal on Language Teaching and Learning, Linguistics and Literature*, 13(2), 5805-5826. [DOI to be verified]
- Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Harvard University Press.
- Xu, T., & Wang, H. (2024). The effectiveness of artificial intelligence on English language learning achievement. *System*, 125, 103428. <https://doi.org/10.1016/j.system.2024.103428>
- Yuniar, Syawal, & Hijrah. (2026). The effectiveness of AI-based application Duolingo in enhancing students' vocabulary mastery among Indonesian EFL learners. *Sintaksis: Publikasi Para Ahli Bahasa dan Sastra Inggris*, 4(1), 30-41. <https://doi.org/10.61132/sintaksis.v4i1.2463>