EDUVELOP
JOURNAL OF ENGLISH EDUCATION AND DEVELPMENT
Nationally Accredited Journal Decree No.10/C/C3/DT.05.00/E5/2025(Sinta 2)

**Volume 9, No. 1,** March 2026 • **Page: 144 - 166**
**DOI:** https://doi.org/v9i1.6112
**ISSN** 2597-713X (print)
**ISSN** 2597-7148 (online)

**OPEN ACCESS: Research Article**

# AI Chatbots and EFL Learners' Risk-Taking in Oral Communication: A Scoping Review

Xiaxia Wang[1*], Yu Meng[2]
[1]School of Modern Languages and Applied Linguistics, University of Limerick, Limerick, Ireland.
[2]School of Foreign Languages and Literature, Harbin Institute of Technology, Weihai Campus, China.

*Correspondence e-mail: wang.xiaxia@ul.ie

| | |
|---|---|
| **Received** : 2025-12-23 | **Accepted** : 2026-01-13 |
| **Revision** : 2026-01-13 | **Published** : 2026-03-31 |

**Abstract**
Research examining the role of AI-powered chatbots in promoting risk-taking in oral communication remains limited. This scoping review explored the interplay between AI-powered chatbots, risk-taking, and oral communication development among English as a Foreign Language (EFL) learners. Guided by the five-stage framework of Arksey and O'Malley and the PRISMA-ScR reporting guidelines, it systematically mapped and synthesized empirical studies retrieved from Web of Science, Scopus, and ProQuest. The analysis of 24 studies, including 18 on AI chatbots and 6 on risk-taking, generated three main findings. First, AI-powered chatbots effectively improved EFL learners' oral communication skills by increasing practice opportunities, providing instant feedback, and creating a low-anxiety environment. Second, risk-taking was positively associated with oral proficiency, primarily by increasing the frequency of output and fostering a positive attitude toward errors. Third, a critical synthesis revealed that the core affordances of chatbots align with the key barriers to risk-taking, positioning them as a potential pedagogical practice to encourage risk-taking by reducing anxiety, boosting self-confidence, and prioritizing meaning-focused communication. Overall, the review highlights the importance of chatbot-mediated learning not only as a tool for linguistic practice but also as an affective scaffold that supports learners' engagement in oral communication. Additionally, the findings underscore the need for chatbot designs that move beyond controlled practice and increase the simulation of real-life, risk-provoking communicative situations. By incorporating open-ended tasks and contextually authentic interactions, chatbots may better prepare learners to transfer risk-taking behaviors from low-stakes digital environments to real EFL classroom contexts.

**Keywords:** *AI-Powered Chatbots; Risk-Taking; Oral Communication Skills; EFL Leaners*

DOI: https://doi.org/v9i1.6112

## 1. Introduction

Oral communication skills are widely recognized as one of the most challenging areas for English as a Foreign Language (EFL) learners to develop, particularly within the context of higher education (Ibna Seraj & Hadina, 2021; Zhao et al., 2025). This difficulty stems from the multidimensional nature of speaking proficiency, which is shaped by environmental and psychological factors (Ibna Seraj & Hadina, 2021). In many EFL contexts, learners have little exposure to the target language outside the classroom, while large class sizes inside the classroom often restrict students' chances to speak (Suban, 2021; Zaroog, 2021). These constraints create a challenging learning environment for developing oral skills (Jiménez, 2015; Ibna Seraj & Hadina, 2021). Apart from environmental barriers, many learners exhibit reluctance to communicate orally due to affective barriers. These include high levels of anxiety, low self-confidence, and low willingness to take risks (Rahmadani & Etfita, 2022; Ananda & Hastini, 2023). Specifically, anxiety often leads learners to avoid speaking situations in the foreign language classroom due to fear of making mistakes, potential embarrassment, and negative evaluation from others (Mouhoubi-Messadh & Khaldi, 2022). Self-confidence concerns individuals' cognitive evaluation of their L2 abilities and the emotion ease they feel when using the L2, particularly a reduction in discomfort and anxiety (Ozdemir & Papi, 2022). When learners perceive themselves as lacking confidence, they are less likely to engage in speaking activities (Ghafar, 2023). Risk-averse learners often miss opportunities to engage in oral communication, which inhibits the development of their speaking skills (Benyoub, 2021). In contrast, risk-taking requires learners to step out of their comfort zone to actively use the target language, thereby increasing speaking opportunities and fostering oral proficiency development (Slavkov, 2023).

To address these challenges that constrain EFL learners' oral communication development, educators and researchers have increasingly turned to technological innovations, particularly artificial intelligence (AI). Among these advancements, AI-powered chatbots have gained significant attention for their potential to improve oral communication skills by addressing both environmental and psychological barriers (Du & Daniel, 2024; Zhang et al., 2024). An AI-powered chatbot is software that mimics the way humans communicate through written text or voice interaction (Brush & Scardina, 2021). Researchers have found that the use of AI chatbots could mitigate one of the key challenges on EFL oral development, namely the lack of opportunities to use the target language. For example, Huang et al. (2022), in a review of 25 empirical studies on AI chatbots in language learning, found that chatbots significantly increase learners' speaking frequency and willingness to engage in oral communication. In addition, AI-powered chatbots are accessible 24/7 with an internet connection, enabling learners to practice speaking without location and time constraints (Dennis Redeemer et al., 2024).

Additionally, AI-powered chatbots have been shown to alleviate affective barriers by providing learners with a judgment-free environment (Bui, 2024; Xiao et al., 2024). Such psychological relief is evident in the study conducted by Kim et al. (2021b), which showed that EFL learners felt more comfortable and less worried when speaking English with an AI chatbot than with a real person. An AI chatbot can also enhance

DOI: https://doi.org/v9i1.6112

learners' confidence through supportive and immediate feedback, encouraging them to speak more (Ruan et al., 2021). However, the role of AI-powered chatbots in fostering learners' willingness to take risks in oral communication remains underexplored.

### 1.1. Conceptual Framework

A conceptual framework is proposed to link the affordances of AI-powered chatbots, key barriers, and risk-taking in EFL oral communication (Figure 1). Grounded in second language acquisition theories, the framework is unpacked below by explaining how chatbot-mediated environments lower affective barriers to promote risk-taking and how increased risk-taking facilitates oral proficiency development.

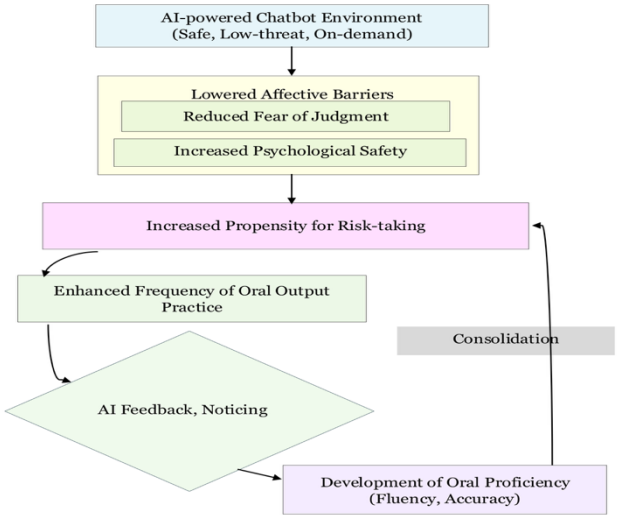


Figure 1. Conceptual Framework

#### 1.1.1. Lowering the Affective Filter: The Role of Chatbot Environments in Facilitating Risk-Taking

The framework's foundation is Krashen's (1982) Affective Filter Hypothesis. This hypothesis explains how affective factors such as motivation, self-confidence, and anxiety influence second language learning. These factors function as a psychological filter that impede learners' access to comprehensible input and constrains their engagement in oral communication (Wang et al., 2022).

A key affordance of AI-powered chatbots is their ability to provide a safe, low-pressure environment for speaking practice. For example, Ding and Yusof (2025) demonstrated that EFL learners felt less fear of negative evaluation when interacting with the AI chatbot *Mondly*, as it created a safe space for speaking practice. Likewise, Grab (2025) found that a 12-week intervention using the chatbot *Langotalk* boosted learners' speaking confidence by reducing the fear of judgment from peers or teachers. By lowering anxiety and boosting confidence, the chatbot environment lowers the affective filter. Since a primary barrier to risk-taking is anxiety about making mistakes and being judged (Falkoni-Mjehović et al., 2022), this lowered filter can directly increase risk-taking propensity. For example, Chen et al. (2025) found that an 8-week oral practice with ChatGPT 4o reduced EFL learners' nervousness and increased their willingness to take risks.

DOI: https://doi.org/v9i1.6112

### 1.1.2. From Risk-Taking to Proficiency: The Output-Practice Loop

Increased risk-taking propensity translates into more frequent oral output. Research on affective variables supports this relationship. For example, Sadoughi and Hejazi (2024) suggest that risk-taking leads to more opportunities for interaction, thereby facilitating oral performance. From an interactional perspective, Long's Interaction Hypothesis posits that communication breakdowns trigger negotiation of meaning, during which input is modified and rendered more comprehensible for learners. This hypothesis continues to inform contemporary second language acquisition research on interaction and meaning negotiation (Ellis, 2021). It is important to notice that these interactional contexts also create conditions for pushed output. When learners attempt to address communicative problems, they are often pushed to produce more accurate language. According to Swain's Output Hypothesis, such pushed output prompts learners to notice gap between their intended meaning and their current linguistic resources. Subsequent attempts at expression, with feedback from the interlocutors, enable learners modify their output, thereby contributing to the development of linguistic accuracy (Ellis, 2021). Interaction with AI chatbots can similarly give rise to negotiation of meaning, in which feedback provided by AI chatbots serves to modify input and make it more comprehensible (Sim et al., 2025). Empirical evidence further suggests that such feedback provided by AI chatbots can be effective at the phonological level. Specifically, Du and Daniel (2024) reported that chatbot-based feedback was effective in supporting improvement in stress and intonation, phonemes, and general voice quality. Consequently, frequent and engaged output practice is likely to facilitate the gradual development of more accurate and fluent oral proficiency. As proficiency grows, learners' self-confidence can be boosted (Hijra et al., 2024). This enhanced confidence then reinforces the initial willingness to take risks, potentially creating a positive feedback loop.

## 1.2. Aim and Objectives

This scoping review aims to synthesize existing evidence and explore the interplay between AI-powered chatbots and risk-taking among EFL learners, thereby mapping the current state of knowledge in this emerging area. This review brings attention to the potential of AI-powered chatbots in encouraging risk-taking tendencies among EFL learners. Additionally, it provides insights for educators by suggesting innovative teaching strategies that explicitly foster risk-taking, enhancing student engagement in the classroom. Finally, this review offers practical recommendations for AI chatbot developers, emphasizing the integration of risk-taking features to support EFL learners in practicing oral communication within the EFL context.

## 2. Methods

This scoping review followed the five-stage framework of Arksey and O'Malley (2005), developed to enhance methodological transparency and rigor in conducting scoping reviews and widely cited in research (Xue et al., 2024). The stages include: (1) identifying the research question, (2) identifying relevant studies, (3) study selection, (4) charting the data, and (5) collating, summarizing, and reporting the results. Additionally, the PRISMA-ScR checklist (Tricco et al., 2018) was adhered to guide the reporting of this

DOI: https://doi.org/v9i1.6112

review.

This study employed a mixed-method explanatory design, integrating quantitative and qualitative approaches to investigate the mismatch between grammar teaching strategies and grammar learning strategies among Gen Z EFL learners. The quantitative phase was used to identify patterns of grammar learning strategies and instructional practices, while the qualitative phase provided deeper insight into learners' experiences of alignment or mismatch in grammar learning. This design was selected to address the pedagogical problem identified in the introduction, namely why grammar instruction remains ineffective despite sustained instructional effort and pedagogical adjustment (Creswell & Clark, 2017)

### 2.1 Identifying the Research Questions Stage

Based on the primary objective of this scoping review and following the PCC (Population, Concept, Context) framework (Pollock et al., 2023) recommended for scoping review, the following research questions were identified:

(1) What is the current evidence on the role of AI-powered chatbots in supporting language learners' oral communication skills in EFL contexts?

(2) How is risk-taking conceptualized and measured in research on EFL learners' oral proficiency?

(3) What evidence exists regarding the relationship between risk-taking and EFL learners' speaking skills?

(4) What are the intersections between AI-powered chatbots and risk-taking in facilitating oral communication for language learners in EFL contexts?

### 2.2. Selecting Relevant Studies Stage

Articles included in this paper were retrieved from three databases: Web of Science, Scopus, and ProQuest, covering publications from 2010-2024. To ensure comprehensive literature coverage, forward and backward reference list checking was also conducted (Ahmed et al., 2023). The reason for selecting these three databases is that AI-powered chatbots, risk-taking, and English-speaking skills intersect across the fields of technology, psychology, and education. Web of Science, Scopus, and ProQuest are recognized as extensively used databases for academic publications across various subjects, including technology, social sciences, arts and humanities, and education (Kraft, 2019; Zhu & Liu, 2020; Pranckutė, 2021). The selection of articles from 2010 to 2024 is based on the evolution of AI chatbots, which have been closely tied to advancements in AI technology. In the early 2010s, advances in natural language processing enhanced machines' language understanding, paving the way for chatbots capable of simulating human-like conversations interactively (Johri et al., 2021). Given this technological progression, this review focuses on studies published from 2010 onward to capture the most relevant and impactful research. The search process took place from the 22nd to the 31st of January 2025.

The search terms for this scoping review were developed based on three key variables: AI-powered chatbots, risk-taking, and oral communication skills. To ensure comprehensive coverage, search terms were structured into two groups, corresponding to the study's research questions: (1) the role of AI-powered chatbots in enhancing oral

DOI: https://doi.org/v9i1.6112

communication skills among EFL learners, and (2) the role of risk-taking in facilitating oral communication skills among EFL learners. The first group search terms included: (("conversational agent" OR "conversational bot" OR "conversational system" OR "chatbot" OR "chat bot" OR "chatterbot" OR "smart bot" OR "educational chatbot" OR "AI chatbot" OR "personal tutor" OR "chatting robot") AND ("oral communication" OR "speaking skills" OR "conversational skills" OR "oral proficiency" OR "speaking ability") AND ("language learning" OR "EFL")). The second group search terms included: (("risk*" OR "risk-taking*" OR "risktaking*") AND ("oral communication" OR "speaking skills" OR "conversational skills" OR "oral proficiency" OR "speaking ability") AND ("language learning" OR "EFL")).

### 2.3. Study Selection Stage

**Table 1.** Inclusion and Exclusion Criteria

| Research Question | Inclusion Criteria | Exclusion Criteria |
|---|---|---|
| RQ1: AI Chatbots & Oral Skills | Empirical studies on EFL university students.<br>Use of specific AI chatbots.<br>Measures oral communication outcomes (fluency, accuracy, anxiety, confidence, etc.). | Not empirical (e.g., reviews, theory).<br>Focus on non-oral skills (reading, writing, listening).<br>Not in English. |
| RQ2&3: Risk-Taking & Speaking Proficiency | Empirical studies on EFL university students.<br>Explicitly examines the concept/measurement of risk-taking.<br>Analyzes the relationship between risk-taking and L2 speaking proficiency. | Not empirical (e.g., reviews, theory).<br>Focus on non-oral skills.<br>Not in English. |
| Universal Criteria | Population: EFL learners at the university level.<br>Access: Full text available. | Language: Not published in English. |

To ensure the selection of the most relevant studies for addressing each research question, inclusion and exclusion criteria were established and applied during the review process (see Table 1). Separate screening criteria were applied to capture the distinct bodies of literature relevant to RQ1 and RQ2&3. Studies were included if they met the specific criteria for either research question. RQ4 did not require separate screening criteria, as it is addressed through a critical synthesis of the intersecting findings derived from studies included under RQ1 and RQ2&3.

DOI: https://doi.org/v9i1.6112

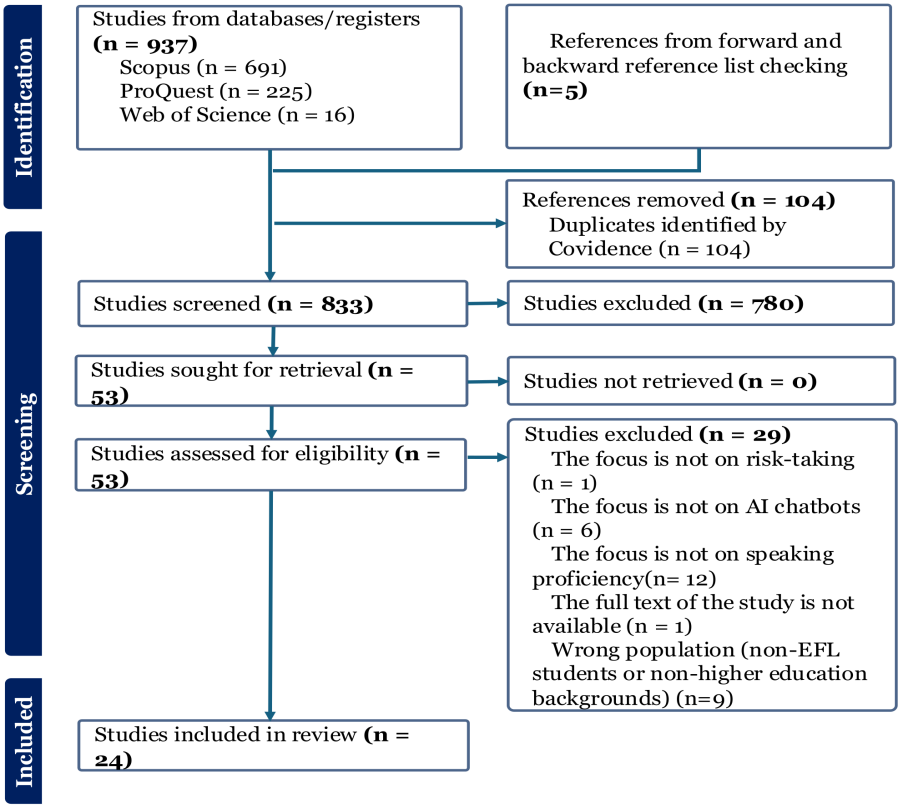


Figure 2. PRISMA-ScR Flow Diagram of the Selection Process

The screening and selection process followed a structured approach. Initially, relevant articles were identified through database searches using specific search terms. Subsequently, titles and abstracts were screened against the eligibility criteria to exclude irrelevant studies, followed by a full-text review of the remaining articles to ensure they met the inclusion criteria and aligned with the research objectives. This process was facilitated using Covidence, a web-based software platform designed to streamline the production of systematic reviews (Babineau, 2014). After importing 937 articles to the Covidence software, it automatically de-duplicated 104, leaving 833 articles for title and abstract screening. At this stage, 780 articles were excluded due to irrelevance, and 53 articles remained for full-text review. At the full-text review stage, 1 article was excluded for not focusing on risk-taking, 6 articles for not addressing AI chatbots, and 12 articles for not examining speaking proficiency. Additionally, 1 article was unavailable in full text, and 9 studies were excluded because their participants were either not EFL learners or were not from higher education backgrounds. As a result, 24 studies were included in this scoping review, as presented in Figure 2.

### 2.4. Charting the Data Stage

The template data extraction instrument provided in the JBI Evidence Synthesis Manual was used during the data extraction process. This includes the name of the author(s), year of publication, origin, aims, population and sample size, methodology, intervention type and its duration, outcomes, and key findings that address the review questions (Aromataris et al., 2024). Data extraction was performed using Microsoft Excel (see Appendix).

DOI: https://doi.org/v9i1.6112

## 2.5. Stage of Collating, Summarizing, and Reporting the Results

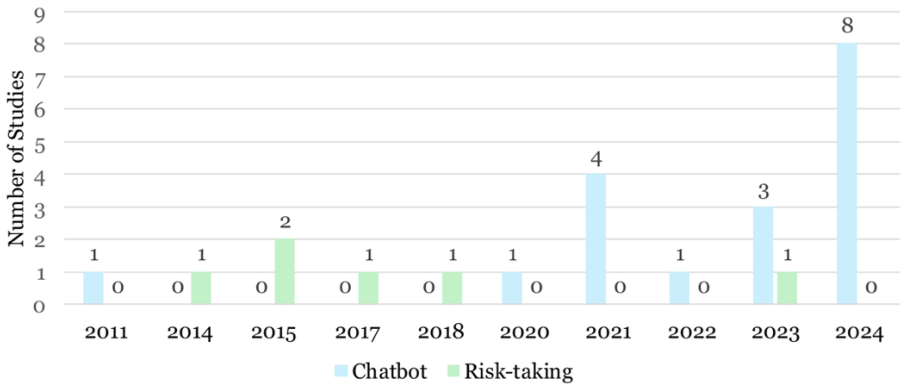


Figure 3. Year of Study Publication

Regarding the publication years of the included studies, the trend illustrates a notable shift in research attention over time. Before 2021, studies on the use of AI-powered chatbots in EFL contexts had gained little attention, whereas several studies during this period explored risk-taking as a method to improve speaking skills. However, beginning in 2021, the number of studies on AI-powered chatbots increased sharply and continued to rise through 2024. In contrast, research focusing on risk-taking has remained consistently low, indicating that this concept has not received the same level of focus in the literature (see Figure 3).

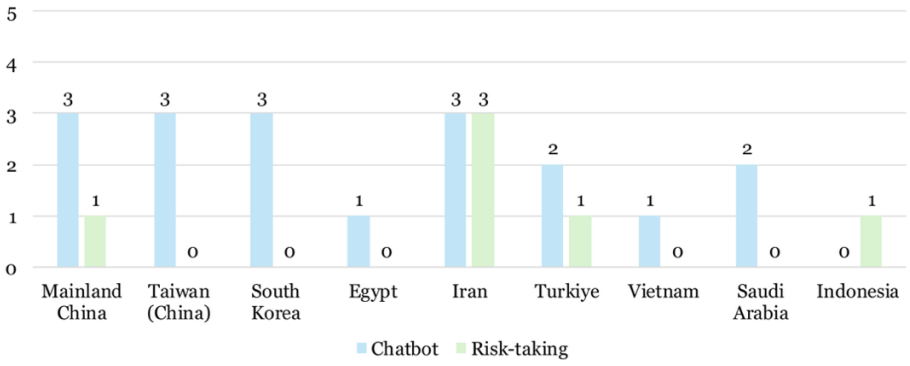


Figure 4. Countries Conducted the Studies

In terms of the countries where the included studies were conducted, Figure 4 shows that research on AI chatbots for developing speaking skills is concentrated mainly in Mainland China, Taiwan, South Korea, and Iran. In contrast, studies examining risk-taking in oral communication were primarily conducted in Iran. Interestingly, Taiwan, South Korea, Egypt, Vietnam, and Saudi Arabia remain absent in research on learners' risk-taking tendencies in developing speaking skills, while Indonesia has not yet employed AI chatbot-mediated approaches for speaking practice.

Across the included studies, participants were undergraduate EFL learners in higher education, with sample sizes ranging from 30 to 313 (e.g., n=48; Guan et al., 2024). The methodological approaches varied, with seventeen studies using a quasi-experimental design, involving an experimental group that used specific AI-powered chatbots and a

DOI: https://doi.org/v9i1.6112

control group that followed a conventional learning environment (e.g., El Shazly, 2021). Intervention durations ranged from three weeks to a full semester (e.g., 12 weeks; Fathi et al., 2024). Eleven studies employed AI chatbots as conversational partners in class (e.g., Kim et al., 2021bb), while seven articles used them outside of class (e.g., Yildiz, 2024). However, one study adopted a mixed-methods design, combining a survey and semi-structured interviews after one semester of AI chatbot usage (Zou et al., 2024).

Regarding studies on risk-taking, only one study used a mixed-methods approach with a survey and semi-structured interviews (Fasihi & Biria, 2017), while five studies employed a quantitative method, including questionnaires and English oral tests (e.g., Wang & Lin, 2015). Detailed characteristics of each included study are provided in the Appendix.

## 3. Results and Discussions

This section presents and discusses the findings of the scoping review in response to the four research questions. The results are organized thematically to examine (1) the role of AI chatbots in speaking development, (2) the conceptualization and measurement of risk-taking in EFL contexts, (3) the relationship between risk-taking and oral proficiency, and (4) the role of AI chatbots in promoting risk-taking in oral communication. Before presenting the results for each research question, it is necessary to clarify how oral proficiency is measured across the selected studies. This is because the review examines how risk-taking and AI chatbot use influence oral proficiency, while variations in assessment methods may contribute to differences in reported outcomes.

### 3.1. Measurement of Oral Proficiency in the Reviewed Studies

Across the 18 studies exploring AI chatbots for speaking development, various approaches were used to evaluate oral proficiency. These methods range from standardized tests and chatbot-integrated automated speech evaluation to task-based performance assessments and indirect self-reported measures. First, compared to the other three measurement approaches, standardized assessments were the most frequently adopted method, used in 11 out of the 18 studies. These methods included the IELTS Speaking Test (n=7, e.g., Guan et al., 2024), CEFR-based Test (n=1, e.g., Çakmak, 2022), and TOEIC Speaking Test (n=3, e.g., Kim et al., 2021a). All of these tests evaluated overlapping core constructs: pronunciation, fluency and coherence, lexical resource, grammar, and accuracy. Variations exist in their specific emphases; for example, the CEFR-based approach also assessed interaction, while the TOEIC format highlighted content completeness. Overall, they represent a methodological preference for comprehensive, multi-construct evaluation of speaking proficiency. Second, automated speech evaluation features integrated within chatbots themselves represent a distinct methodological approach for assessing speaking proficiency. For instance, Zou et al. (2024) and Makhlouf (2021) used the built-in automated feedback functions of AI chatbots like EAP Talk and ELSA Speak as the primary assessment instrument. Their built-in algorithms provided scores on dimensions such as fluency, pronunciation, rhythm, and grammar during oral tasks. This method highlights the shift towards immediate, technology-mediated feedback, where assessment is

DOI: https://doi.org/v9i1.6112

embedded within the learner-chatbot interaction. Third, task-based performance assessments were used in two studies. Azizimajd (2023) designed audio-recorded speaking tasks to evaluate fluency. Similarly, Aldosari (2024) employed self-designed speaking tasks to assess speaking performance, despite not reporting an explicit scoring rubric. Finally, indirect or alternative speaking measures were used to capture different aspects of oral proficiency. For example, Chen (2011) used open-ended spoken responses in a survey to measure students' perceived pronunciation accuracy. Fourth, other studies relied on self-reported data collected through surveys and semi-structured interviews to assess perceived improvement, confidence, or self-efficacy in speaking (e.g., Yildiz, 2024; Lee & Davis, 2024).

Six studies examining the relationship between risk-taking and speaking skills employed diverse methods to measure oral proficiency. These methods can be classified into three main categories: (1) standardized tests, (2) task-based performance assessments, and (3) indirect speaking measurements. First, three studies used standardized or criterion-referenced tests. For example, Wang and Lin (2015) referenced metrics (fluency, accuracy, and complexity) from the Shanghai Interpretation Accreditation (SIA) oral test. Similarly, Peimani and Saeidi (2015) employed the Preliminary English Test, while Suryani and Argawati (2018b) used Hughes's 2003 Speaking Scoring Rubrics Test, evaluating grammar, vocabulary, fluency, comprehension, and pronunciation. Second, a task-based performance assessment was also used. One study employed an oral narrative task (e.g., describing a picture), focusing on measuring pronunciation, grammar, vocabulary, and fluency (Majidifard et al., 2014). Third, two studies employed indirect speaking measures to capture speaking-related constructs. Aksak et al. (2023) used a self-report questionnaire to measure learners' perceived speaking tendencies, while Fasihi and Biria (2017) utilized a performance-based interview task to assess actual oral fluency. This contrast highlights two common but distinct methodological paradigms in the literature: indirect perceptual measures and direct behavioral assessments.

Despite examining different focal variables, the studies in both bodies of literature demonstrate notable convergence in how oral proficiency is measured. Across studies investigating AI chatbots and those examining risk-taking, standardized speaking assessments are the most frequently adopted approach. Similarly, task-based performance assessments in both strands rely on elicited speaking tasks to capture observable speaking performance. These methodological similarities suggest that, despite variations in research focus, oral proficiency is operationalized in relatively consistent ways across the literature. This consistency provides a more stable basis for interpreting how different factors, including AI chatbot use and risk-taking tendencies, are associated with speaking development. However, the presence of indirect and self-reported measures in both strands also introduces variability in how speaking outcomes are represented, potentially contributing to differences in reported effects.

### 3.2. AI-Powered Chatbots and Speaking Development

This subsection addresses Research Question 1: *What is the current evidence on the role of AI-powered chatbots in supporting language learners' oral communication*

DOI: https://doi.org/v9i1.6112

*skills in EFL contexts?* The response to this research question is presented from two perspectives. On the one hand, this subsection synthesizes the types of chatbot identified from the selected studies that support learners' oral practice; on the other hand, it further summarizes the interactional mechanisms through which these chatbots facilitate the development of oral communication skills.

### 3.2.1. Types of Chatbot Supporting Oral Practice

Across 18 studies, three primary types of chatbot were identified: conversational, gamified, and assessment-based chatbots, each contributing to oral communication development in distinct ways. First, compared to gamified and assessment-based chatbots, conversational chatbots prioritize the fluency practice over motivation and explicit corrective feedback, reflecting a communicative orientation in their pedagogical design. Conversational AI chatbots identified in the reviewed studies include *Replika*, *ChatGPT*, *Andy*, *Lucy*, and *Soul Machines*. These chatbots enable learners to engage in conversations across diverse topics, providing an interactive and contextual learning experience that enhances fluency and spontaneous speech production (e.g., Guan et al., 2024). These chatbots are typically powered by technologies enabling natural interaction, including Natural Language Processing and Large Language Models for understanding and generating human-like responses, and Automatic Speech Recognition combined with Text-to-Speech for spoken dialogue (Rawat et al., 2024). Second, gamified chatbots focus on the enhancement of motivation and engagement in speaking practice. For example, *Duolingo* (Qiao & Zhao, 2023) and the *ASR-based Oral Skills Training Website* (Chen, 2011), integrate game mechanics (e.g., streaks, points, badges) into language practice. Third, compared to conversational and gamified chatbots, the assessment-focused chatbots targets the development of accuracy. For example, *EAP Talk*, *Speeko*, *TPBOT*, and *ELSA Speak*. They employ automated speech analysis to give scores and corrective feedback on dimensions such as pronunciation, fluency, rhythm, and grammatical accuracy (e.g., Makhlouf, 2021; Shafiee Rad, 2024). All in all, these three types of chatbots reflect different pedagogical orientations: communicative interaction, motivational engagement, and performance assessment. However, they have a same goal is to serve oral communication development, their mechanisms and targeted speaking dimensions vary significantly.

### 3.2.2. Interactional Mechanisms Underlying Speaking Development

Despite differences in design, these chatbots share several core functional affordances that support oral communication development. through three key mechanisms: (1) increased speaking practice, (2) real-time feedback, and (3) a low-pressure learning environment. First, AI-powered chatbots have created more opportunities for speaking practice both inside and outside the classroom, which contributes to the development of speaking fluency. Six out of 18 studies reported that AI-powered chatbots improved learners' oral proficiency by increasing speaking opportunities (Guan et al., 2024; Shafiee Rad, 2024; Chen, 2011; EI Shazly, 2021; Duong & Suppasetseree, 2024; Qiao & Zhao, 2023). Learners identified the expanded practice time as a key benefit, which in turn developed specific subskills, including pronunciation, vocabulary, intonation, and the ability to convey ideas. This finding is

DOI: https://doi.org/v9i1.6112

consistent with the review by Dennis Redeemer et al. (2024), which highlighted the role of AI chatbots in providing round-the-clock interaction opportunities for learners.

From an interactionist perspective, the increased availability of speaking opportunities may create more chances for negotiation of meaning and pushed output, which are important mechanism in second language development (Ellis 2021). These findings are particularly relevant in EFL contexts, where opportunities for spoken interaction are often limited due to large class sizes (Chen & Hwang, 2022). In this respect, the evidence reviewed in the present study suggests that AI-powered chatbots can help mitigate this challenge by proving learners with continuous chances for oral interaction beyond the classroom.

Second, AI-powered chatbots provide instant feedback that is helpful for speaking accuracy development. Six out of 18 studies showed that AI-powered chatbots enhanced oral proficiency by providing real-time feedback that fosters accuracy on intonation, lexical choice, pronunciation, and grammar (Duong & Suppasetseree, 2024; Fathi et al., 2024; Guan et al., 2024; Makhlouf, 2021; Qiao & Zhao, 2023; Shafiee Rad, 2024). This result is consistent with systematic review evidence suggesting that chatbot-based feedback was effective in supporting pronunciation-related features such as stress, intonation, phonemes, and overall voice quality (Du & Daniel, 2024).

Theoretically, this finding can be understood through Swain's Output Hypothesis, specifically its noticing and hypothesis testing functions (Ellis 2021). The noticing function suggests that learners might recognize the differences between the target language forms produced by the chatbot and those in their own output. As a result, learners can imitate the correct forms provided by the chatbot, which contributes to improved accuracy (Duong & Suppasetseree, 2024). In addition, the hypothesis testing function emphasizes that learners test their ideas about how the language works when producing output. When learners attempt to use forms that they believe are correct, feedback from the chatbot signals potential errors, prompting them to revise their linguistic hypotheses. Through repeated cycles of production, feedback, and adjustment, learners gradually enhance their speaking accuracy (Pannell et al., 2017). This finding highlights the affordance of AI chatbots in providing instant corrective feedback on grammar, pronunciation, and vocabulary use, thereby supporting sustained accuracy development (Chen & Lin, 2023; Hoang et al., 2023; Qasem et al., 2023). Such affordances help compensate for the limited availability of individualized teacher feedback in large EFL classrooms (Wang et al., 2024).

Third, AI-powered chatbots are computer-based programs rather than human interlocutors, which can create a safe and non-judgmental environment for interaction. Thirteen out of 18 reviewed studies suggested learners consistently perceived interacting with a chatbot as safer and less stressful than speaking with peers or teachers (e.g., Guan et al., 2024; Shafiee Rad, 2024). Such perceived safety can help EFL learners increase confidence and reduce anxiety (e.g., Makhlouf, 2021; Lee & Davis, 2024). The finding that interaction with AI chatbots can reduce speaking anxiety is consistent with Ding and Yusof (2025). They reported that EFL learners experienced lower levels of foreign language speaking anxiety after interacting with the *Mondly* chatbot. In

DOI: https://doi.org/v9i1.6112

addition, the finding that chatbot-mediated interaction can enhance confidence aligns with Grab (2025). A 12-week interaction with the *Langotalk* chatbot was found to help learners build greater speaking confidence.

This result can be explained through Krashen's Affective Filter Hypothesis, which emphasizes that a high affective filter (i.e., high anxiety, low self-confidence, and low motivation) can inhibit second language acquisition. AI-powered chatbots can help lower learners' affective filter by providing emotionally supportive and encouraging responses, thereby making interactions more enjoyable and less stressful. Indeed, speaking anxiety has been identified as a major barrier to oral proficiency in second language learning, particularly in EFL contexts where students often fear negative evaluation and making mistakes when speaking English (Rohmah & Wijaya, 2025). In this regard, AI-powered chatbots represent a promising solution by providing a low-pressure environment that encourages sustained oral practice.

### 3.3. Conceptualization and Operationalization of Risk-taking

This subsection presents the results for Research Question 2: *How is risk-taking conceptualized and measured in research on EFL learners' oral proficiency?* The synthesized findings are demonstrated in two aspects: (a) the conceptualization of risk-taking and (b) the operationalization of risk-taking.

#### 3.3.1. Conceptualization of Risk-taking

Five out of the 6 reviewed studies provided explicit conceptualizations of risk-taking, which can be synthesized across three dimensions: sources of uncertainty, decision-making in uncertain situations, and attitudes toward outcomes.

First, regarding the sources of uncertainty. Aksak et al. (2023) and Peimani and Saeidi (2015) propose similar conceptualizations. They frame risk-taking as an individual's willingness to act when faced with uncertainty about outcomes or processes. From this perspective, risk primarily stems from the unknow consequences that may arise after taking action. By contrast, Fasihi and Biria (2017) and Wang and Lin (2015) situate uncertainty within social interaction contexts, emphasizing that risk stems not only from the task itself but also from the potential social consequences such as embarrassment or peer evaluation. In contrast to these views, Suryani and Argawati (2018) define the source of uncertainty as novel or unfamiliar learning situations encountered in second language learning.

Second, regarding decision-making in uncertain situations, scholars generally view risk-taking as a decision-making tendency, although its specific manifestations differ. Aksak et al. (2023), Peimani and Saeidi (2015), and Suryani and Argawati (2018) primarily focus on whether learners choose to act or attempt taking actions in uncertain situations. By contrast, Fasihi and Biria (2017) and Wang and Lin (2015) emphasize whether learners are willing to expose themselves in social interactions. Among these, Wang and Lin (2015) further note that risk-taking manifests in learners' confidence to express non-mainstream viewpoints and their willingness to making mistakes.

Third, in term of attitudes toward outcomes, Aksak et al. (2023) and Peimani and Saeidi (2015) primarily emphasize the unpredictability of outcomes, conceptualizing risk-taking as choosing to act despite uncertain results. However, Fasihi and Biria

(2017) highlights the potential social risks that outcomes may bring, viewing risk-taking as behaviour that could lead to embarrassment or negative evaluations. In contrast, Wang and Lin (2015) regards risk-taking as a crucial pathway for personal growth and leaning achievement, endowing it with positive development significance. By contrast, Suryani and Argawati (2018) weaken the focus on the outcomes of success or failure themselves, emphasizing the importance of the process-oriented decision-making involved in learners attempting new situations. Overall, these researchers define and interpret risk-taking from multiple dimensions, including sources of uncertainty, individual decision-making in uncertain situations, and attitudes toward uncertain outcomes. This indicates that risk-taking is not merely an individual psychological trait, but a multidimensional concept that involves situational factors, decision-making behaviours, and social interactions.

### 3.3.2. Operationalization of Risk-taking

Across the six reviewed studies, risk-taking was predominantly operationalized as learners' psychological willingness to engage with uncertainty in oral communication, including tolerating potential errors and experimenting with linguistic forms. This construct was largely measured through self-report questionnaires, although the specific instruments and theoretical orientations varied. Three studies adopted a foundational framework, the Language Class Risk-taking Scale proposed by Ely (1986). The original scale is a 6-item, 6-point Likert instrument assessing behaviors such as using newly learned vocabulary, attempting complex structures, and tolerating inaccuracy. For instance, Wang and Lin (2002) integrated items from Ely's scale with supplementary questions adapted from Zou (2011) to capture learners' general attitudes toward challenge and risk. Similarly, Suryani and Argawati (2018) developed a context-specific questionnaire based on Ely's framework to measure emotions, confidence, and experimentation with linguistic elements during speaking, which was later adapted by Aksak et al. (2023).

The remaining studies used broader or context-specific instruments. Peimani and Saeidi (2015) employed a general personality-based risk-taking test (Jerabek & McKenna, 2006), framing it as a stable individual trait. Similarly, Majidifard et al. (2014) used the venturesomeness subscale of Eysenck's IVE questionnaire, which also operationalizes risk-taking as a personality trait. Fasihi and Biria (2017) employed a strategy-taking questionnaire including risk-taking strategies in speaking contexts. All in all, these studies on operationalizing risk-taking mainly relies on self-report instruments, which to some extent facilitates quantitative comparisons of learners' risk-taking tendencies. However, such methods may face difficult in revealing the process-oriented mechanisms underlying learners' risk-taking behaviours within specific interactive contexts. Further research should integrate qualitative approaches (e.g., interviews, learning journals, or classroom observations) to conduct more nuanced investigations into the dynamic manifestations of risk-taking.

DOI: https://doi.org/v9i1.6112

### 3.4. Risk-Taking and Oral Proficiency

This subsection presents synthesized findings addressing Research Question 3: *What evidence exists regarding the relationship between risk-taking and EFL learners' speaking skills?* Despite differences in measurement of risk-taking, most studies reported a positive relationship between learner risk-taking and oral proficiency. Notably, one study presented a contrasting finding. This positive relationship manifests through two key mechanisms: increased speaking opportunities and increased positive attitude toward errors.

First, two out of 6 studies reported that risk-takers often actively grasp more speaking opportunities, leading to more output. Specifically, Wang and Lin (2015) reported a positive relationship between risk-taking and speaking fluency, which is because risk-takers grasp any chance to express themselves and are not afraid of making mistakes. Similarly, Fasihi and Biria (2017) suggested that risk-taking leads to a greater amount of speaking as learners try out and extend their competence rather than avoiding or minimizing communication. This increased speaking practice is fundamental for fluency development. This pattern is similar to Sadoughi and Hejazi (2024), who found risk-taking as a mediator factor facilitating Iranian EFL learners' willingness to communicate.

This finding can be interpreted through Swain's Output Hypothesis, which suggests that producing language is essential for acquisition (Ellis, 2021). Risk-taking encourages learners to engage more actively in speaking activities and to produce language even when they are uncertain about accuracy. Increased output allows learners to practice in real-time communication, reduces hesitation, and builds spontaneous speaking skills. This mechanism can address a fundamental challenge in EFL contexts: the lack of opportunities to use the target language. Therefore, encouraging risk-taking may motivate learners not only to participate more in class but also to proactively seek additional practice environments, such as language clubs, thereby creating a self-reinforcing cycle of practice and improvement.

Second, three out of 6 studies stated that risk-taking learners typically adopt a positive and tolerant attitude toward errors and incorrectness (Peimani & Saeidi, 2015; Wang & Lin, 2015; Suryani & Argawati, 2018). That is, when learners are no longer overly concerned about making mistakes, they are more likely to focus on conveying meaning. As a result, they can engage in sustained risk-taking in subsequent communication interaction. This finding can be explained by the hypothesis-testing function of Swain's Output Hypothesis (Ellis, 2021). When learners encounter linguistic difficulties while attempting to express their intended meanings, they do not avoid producing output due to concerns about making mistakes. Instead, they choose to engage in tentative attempts at expression. Within this framework, such attempts can be viewed as manifestations of learners' risk-taking. This suggests that oral language instruction should encourage learners to engage in tentative output during expression rather than overly emphasizing linguistic formality. By creating an interactive environment that permits errors, learners are more likely to speak up in uncertain linguistic situations, thereby undertaking risk-taking language attempts.

DOI: https://doi.org/v9i1.6112

### 3.5. Synthesized Chatbot Affordance and Risk-Taking

This subsection directly addresses the fourth research question, which explores the intersections between AI-powered chatbots and risk-taking in facilitating oral communication. To do so, it aligns the barriers to risk-taking identified in the reviewed studies with the affordance of AI chatbots documented in the first strand of research to assess their potential to mitigate these barriers.

The risk-taking studies identified two primary barriers: (1) a low tolerance for errors, where learners perceive mistakes as unacceptable failures are less willing to experiment with new language elements, a pattern noted across four studies (Peimani & Saeidi, 2015; Wang & Lin, 2015); (2) learner anxiety and self-confidence, which was found to be negatively correlated with risk-taking behaviors (Fasihi & Biria, 2017).

The analysis reveals that the affordance of real-time feedback provided by AI chatbots can address the low tolerance for the error barrier. In traditional classrooms, the source of low error tolerance is often social and psychological. For instance, Georgiadou (2016) noticed that EFL learners' perceived potential embarrassment when receiving corrective feedback from teachers. This leads students to avoid speaking up to avoid public correction.

AI chatbots provide immediate but non-judgmental feedback without social judgment. Learners can make errors without fear of public embarrassment, as the interaction is private. This removes the evaluation apprehension that heightens anxiety in human-to-human communication. Cottrell et al. (1968), in their evaluation apprehension theory, argued that the individuals' performance is not only influenced by the presence of others but also by the fear of anticipated negative evaluation, which can increase anxiety. Siemon (2023) aimed to address evaluation apprehension by proposing AI-based computer systems. The findings showed that individuals experienced less evaluation apprehension when presenting their ideas to an AI system than to a human audience. Unlike a classroom setting with time constraints, chatbots allow learners to repeatedly test linguistic hypotheses. They can rephrase, self-repair, and receive feedback on each attempt without pressure. This process facilitates noticing, the cognitive awareness of the gap between their interlanguage and the target form (Schmidt, 1990). Within the low threat chatbot environment, repeated practice and feedback lead to gradual improvement in linguistic accuracy. Witnessing their own improvement through successful interactions builds learners' self-efficacy (Bandura, 1997), their belief in their ability to execute speaking tasks successfully. With stronger self-efficacy, learners develop a higher tolerance for errors. Mistakes are reframed from threats to identity to natural steps in the learning process. Ultimately, this confidence and error tolerance can transfer to the human classroom. Celik et al. (2025) reported that *ChatGPT* is a promising tool to increase students' speaking self-efficacy scores because it offers a welcoming atmosphere to receive constructive feedback, play recordings several times, and balanced instruction according to learners' levels.

Another affordance of a low-pressure learning environment created by AI chatbots could mitigate barriers of learner anxiety and low self-confidence. In traditional EFL classrooms, learners may experience anxiety and low self-confidence in speaking due to

perceptions of their own low proficiency and increased sensitivity to comparisons with more proficient classmates (Kasap & Power, 2019). Additionally, classroom speaking activities often take place in public performance settings, where making mistakes in front of peers can heighten perceptions of social threat and potential face loss. As non-human interlocutors, chatbots provide a non-judgmental space where learners are not afraid of making mistakes (e.g., Makhlouf, 2021). Interacting with a chatbot removes the peer audience and the pressure of social comparison. Learners can speak freely without fear of negative evaluation from a human teacher or peer, thereby lowering the affective filter that blocks language acquisition. Empirical studies confirm this change in learners' emotional experiences during speaking practice. For instance, Naseer et al. (2024) reported that after 8 weeks of regular interaction with AI chatbots, students reported significantly reduced speaking anxiety and increased self-confidence. Learners attributed this change to the ability to practice without fear of mistakes or judgment. This evidence demonstrates that sustained interaction in a low-pressure environment provides more than increased speaking practice. It actively reshapes learners' emotional relationship with the speaking process, replacing apprehension with a greater sense of confidence.

## 4. Conclusion

This scoping review examined how AI-powered chatbots and risk-taking jointly contribute to EFL learners' oral communication development. The synthesis indicates that chatbot-mediated environments support speaking not only by increasing practice opportunities but also by shaping affective conditions that influence learners' willingness to take risks. Risk-taking emerges as a key mechanism for oral proficiency development. This suggests that EFL instruction may benefit from integrating AI chatbots as supplementary tools that provide low-stakes opportunities for experimentation and error tolerance. While chatbots are increasingly used to reduce anxiety and build confidence, their potential to systematically encourage risk-taking in support of classroom speaking remains underexplored. Future research should therefore investigate how chatbot-mediated activities can be designed to complement classroom instruction by preparing learners to take greater communicative risks in face-to-face EFL contexts.

## Conflicts of Interest

The authors declare no conflict of interest. This study received no external funding

## References

Ahmed, A., Hassan, A., Aziz, S., Abd-alrazaq, A. A., Ali, N., Alzubaidi, M., Al-Thani, D., Elhusein, B., Siddig, M. A., Ahmed, M., & Househ, M. (2023). Chatbot features for anxiety and depression: A scoping review. *Health informatics journal*, *29*(1), 14604582221146719. https://doi.org/10.1177/14604582221146719

Aksak, K., Kuzu, E., Külekçi, G., & Cubukcu, F. (2023). The Interface Between Risk Taking and Foreign Language Speaking. *Uluslararası Güncel Eğitim Araştırmaları Dergisi*, *9*(2), 141-152.

Aldosari, M. (2024). Another World with Artificial Intelligence in Speaking Classes: To Delve into the Influences on Willingness to Communicate, Personal Best Goals, and Academic Enjoyment. *Computer-Assisted Language Learning Electronic Journal*, *25*(4), 439-463.

Ananda, N., & Hastini, H. (2023). A study on self-confidence impact of ELF students' speaking. *Journal of General Education and Humanities*, *2*(3), 237-246. https://doi.org/https://doi.org/10.58421/gehu.v2i3.158

Arksey, H., & O'Malley, L. (2005). Scoping studies: towards a methodological framework. *International journal of social research methodology*, *8*(1), 19-32. https://doi.org/10.1080/1364557032000119616

Aromataris, E., Lockwood, C., Porritt, K., Pilla, B., & Jordan, Z. (2024). *JBI Manual for Evidence Synthesis*. https://synthesismanual.jbi.global.

Azizimajd, H. (2023). Investigating the impacts of voice-based student-chatbot interactions in the classroom on EFL learners' oral fluency and foreign language speaking anxiety. *Technology Assisted Language Education*, *1*(2), 61-83. https://doi.org/10.22126/tale.2024.10654.1037

Babineau, J. (2014). Product review: Covidence (systematic review software). *Journal of the Canadian Health Libraries Association/Journal de l'Association des bibliothèques de la santé du Canada*, *35*(2), 68-71.

Bandura, A. (1997). *Self-efficacy in changing societies*. Cambridge University Press.

Benyoub, I. (2021). *Increasing Learners' Speaking Proficiency through Risk-taking* UNIVERSITY OF 8 MAI 1945].

Brush, K., & Scardina, J. (2021). *Chatbot*. TechTarget. Retrieved March 17 from https://www.techtarget.com/searchcustomerexperience/definition/chatbot

Bui, T. P. T. (2024). *Exploring the improvement of IELTS Speaking score through practice with Artificial Intelligence (AI) Technology-" Call Annie"* [Master's thesis, University of Hawai'i at Mānoa]. https://hdl.handle.net/10125/108835

Çakmak, F. (2022). Chatbot-Human Interaction and Its Effects on EFL Students' L2 Speaking Performance and Anxiety. *Novitas-ROYAL*, *16*(2), 113.

Celik, B., Yildiz, Y., & Kara, S. (2025). Using ChatGPT as a virtual speaking tutor to boost EFL learners' speaking self-efficacy. *Australian journal of applied linguistics (Online)*, *8*(1), 102418. https://doi.org/10.29140/ajal.v8n1.102418

Chen, H. H.-J. (2011). Developing and evaluating an oral skills training website supported by automatic speech recognition technology. *ReCALL (Cambridge, England)*, *23*(1), 59-78. https://doi.org/10.1017/S0958344010000285

Chen, M.-R. A., & Hwang, G.-J. (2022). Effects of experiencing authentic contexts on English speaking performances, anxiety and motivation of EFL students with different cognitive styles. *Interactive learning environments*, *30*(9), 1619-1639. https://doi.org/10.1080/10494820.2020.1734626

Chen, M.-R. A., & Lin, Y.-H. (2023). AI chatbot-supported grammar tense learning on EFL students learning effectiveness. INTED2023 proceedings,

Chen, Y., Ke, N., Huang, L., & Luo, R. (2025). The Role of GenAI in EFL Speaking: Effects on Oral Proficiency, Anxiety and Risk-Taking. *RELC journal*.

https://doi.org/10.1177/00336882251341072

Cottrell, N. B., Wack, D. L., Sekerak, G. J., & Rittle, R. H. (1968). SOCIAL FACILITATION OF DOMINANT RESPONSES BY THE PRESENCE OF AN AUDIENCE AND THE MERE PRESENCE OF OTHERS. *Journal of personality and social psychology*, *9*(3), 245-250. https://doi.org/10.1037/h0025902

Dennis Redeemer, K., Dapaah, E. O., & Akolgo, E. A. (2024). THE ROLE OF AI CHATBOTS IN EDUCATION: A REVIEW. *Academy Journal of Science and Engineering*, *18*(1), 79-87.

Ding, D., & Muhyiddin B Yusof, A. (2025). Investigating the role of AI-powered conversation bots in enhancing L2 speaking skills and reducing speaking anxiety: a mixed methods study. *Humanities & social sciences communications*, *12*(1), 1223-1216. https://doi.org/10.1057/s41599-025-05550-z

Du, J., & Daniel, B. K. (2024). Transforming language education: A systematic review of AI-powered chatbots for English as a foreign language speaking practice. *Computers and education. Artificial intelligence*, *6*, 100230. https://doi.org/10.1016/j.caeai.2024.100230

Duong, T., & Suppasetseree, S. (2024). The Effects of an Artificial Intelligence Voice Chatbot on Improving Vietnamese Undergraduate Students' English Speaking Skills. *International Journal of Learning, Teaching and Educational Research*, *23*(3), 293-321. https://doi.org/10.26803/ijlter.23.3.15

El Shazly, R. (2021). Effects of artificial intelligence on English speaking anxiety and speaking performance: A case study. *Expert systems*, *38*(3), n/a. https://doi.org/10.1111/exsy.12667

Ellis, R. (2021). A short history of SLA: Where have we come from and where are we going? *Language teaching*, *54*(2), 190-205. https://doi.org/10.1017/S0261444820000038

Ely, C. M. (1986). An analysis of discomfort, risktaking, sociability, and motivation in the L2 classroom. *Language learning*, *36*(1), 1-25. https://doi.org/10.1111/j.1467-1770.1986.tb00366.x

Falkoni-Mjehović, D., Tolj, Z. R., & Baranac, S. D. (2022). Research on risk-taking, anxiety and shyness in foreign language learning. *KNOWLEDGE-International Journal*, *52*(2), 267-272.

Fasihi, M. M., & Biria, R. (2017). Contributory Role of Intermediate Iranian EFL Learners' Risk-taking Strategies in Improving their Speaking Fluency: The Case of Gender. *Journal of Applied Linguistics and Language Research*, *4*(4), 29-39.

Fathi, J., Rahimi, M., & Derakhshan, A. (2024). Improving EFL learners' speaking skills and willingness to communicate via artificial intelligence-mediated interactions. *System (Linköping)*, *121*, 103254. https://doi.org/10.1016/j.system.2024.103254

Georgiadou, E. S. (2016). The role of proficiency, speaking habits and error-tolerance in the self-repair behaviour of Emirati EFL learners. *Asian EFL Journal Research Articles*, *18*(4), 95-117.

Ghafar, Z. N. (2023). The Influence of Self-Confidence on English Language Learning: A systematic Review. *International Journal of Applied Educational Research*

*(IJAER)*, *1*(1), 55-68. https://doi.org/https://doi.org/10.59890/ijaer.v1i1.452

Grab, M. Ö. (2025). Integrated AI chatbot practice: A pathway to improved ESL speaking skills. *Social sciences & humanities open*, *12*, 101933. https://doi.org/10.1016/j.ssaho.2025.101933

Guan, L., Zhang, E. Y., & Gu, M. M. (2024). Examining generative AI–mediated informal digital learning of English practices with social cognitive theory: a mixed-methods study. *ReCALL (Cambridge, England)*, 1-17. https://doi.org/10.1017/S0958344024000259

Hijra, Rahim, T. R., & Syarif, A. R. (2024). Barriers to Oral Proficiency: Exploring Causes of Speaking Inhibition in EFL Learners. *Klasikal: Journal of Education, Language Teaching and Science*, *6*(2), 409-418.

Hoang, N. T., Han, D. N., & Le, D. H. (2023). Exploring Chatbot AI in improving vocational students' English pronunciation. *AsiaCALL Online Journal*, *14*(2), 140-155. https://doi.org/10.54855/acoj.231429

Hsu, M.-H., Chen, P.-S., & Yu, C.-S. (2023). Proposing a task-oriented chatbot system for EFL learners speaking practice. *Interactive learning environments*, *31*(7), 4297-4308. https://doi.org/10.1080/10494820.2021.1960864

Huang, W., Hew, K. F., & Fryer, L. K. (2022). Chatbots for language learning—Are they really useful? A systematic review of chatbot-supported language learning. *Journal of computer assisted learning*, *38*(1), 237-257. https://doi.org/10.1111/jcal.12610

Ibna Seraj, P. M., & Hadina, H. (2021). A Systematic Overview of Issues for Developing EFL Learners' Oral English Communication Skills. *Journal of lanugage and education*, *7*(1), 229-240. https://doi.org/10.17323/jle.2021.10737

Jiménez, G. V. (2015). Three Communication Difficulties of EFL Students. *Revista de lenguas modernas*(23), 221. https://doi.org/10.15517/rlm.v0i23.22347

Johri, P., Khatri, S. K., Al-Taani, A. T., Sabharwal, M., Suvanov, S., & Kumar, A. (2021). Natural language processing: History, evolution, application, and future work. The 3rd International Conference on Computing Informatics and Networks: ICCIN 2020 India.

Kasap, S., & Power, K. M. (2019). Anxiety in the EFL Speaking Classrooms. *The Journal of Language Teaching and Learning*, *9*(2), 23-36.

Kim, H.-S., Cha, Y., & Kim, N. Y. (2021a). Effects of AI chatbots on EFL students' communication skills. *영 어 학*, *21*, 712-734. https://doi.org/10.15738/kjell.21..202108.712

Kim, H.-S., Cha, Y., & Kim, N. Y. (2021b). Is it beneficial to use AI chatbots to improve learners' speaking performance? *Journal of Asia TEFL*, *18*(1), 161-178.

Kraft, A. (2019). ProQuest One Academic. *The Charleston Advisor*, *21*(1), 43-48. https://doi.org/10.5260/chara.21.1.43

Krashen, S. D. (1982). *Principles and practice in second language acquisition*. Pergamon.

Lee, Y. J., & Davis, R. O. (2024). A Case Study of Implementing Generative AI in University's General English Courses. *Contemporary Educational Technology*, *16*(4), ep533. https://doi.org/10.30935/cedtech/15218

Lin, C.-J., & Mubarok, H. (2021). Learning Analytics for Investigating the Mind Map-Guided AI Chatbot Approach in an EFL Flipped Speaking Classroom. *Educational Technology & Society*, *24*(4), 16-35. https://doi.org/10.30191/ETS.202110_24(4).0002

Majidifard, E., Shomoossi, N., & Ghourchaei, B. (2014). Risk Taking, Gender and Oral Narrative Proficiency in Persian Learners of English. *Procedia, social and behavioral sciences*, *98*, 1085-1092. https://doi.org/10.1016/j.sbspro.2014.03.520

Makhlouf, M. K. I. (2021). Effect of artificial intelligence-based application on Saudi preparatory-year students' EFL speaking skills at Albaha university. *International Journal of English Language Education*, *9*(2), 36-57.

Mouhoubi-Messadh, C., & Khaldi, K. (2022). Dealing with foreign language speaking anxiety: What every language teacher should know. *Training, language and culture (Online)*, *6*(1), 20-32. https://doi.org/10.22363/2521-442X-2022-6-1-20-32

Naseer, F., Khalid, U., Qammar, M. Z., & Kashif, H. (2024). Chatbots as Conversational Partners: Their Effectiveness in Facilitating Language Acquisition and Reducing Foreign Language Anxiety. *Journal of Applied Linguistics and TESOL (JALT)*, *7*(4), 238-255.

Ozdemir, E., & Papi, M. (2022). Mindsets as sources of L2 speaking anxiety and self-confidence: the case of international teaching assistants in the U.S. *Innovation in language learning and teaching*, *16*(3), 234-248. https://doi.org/10.1080/17501229.2021.1907750

Peimani, M., & Saeidi, M. (2015, December 2015). *The Relationship between Iranian EFL Learners' Risk Taking Strategy Use and Speaking Skill* International Conference on Research in Science and Technology, Kuala Lumpur, Malaysia.

Pollock, D., Peters, M. D. J., Khalil, H., McInerney, P., Alexander, L., Tricco, A. C., Evans, C., Moraes, É. B. d., Godfrey, C. M., Pieper, D., Saran, A., Stern, C., & Munn, Z. (2023). Recommendations for the extraction, analysis, and presentation of results in scoping reviews. *JBI evidence synthesis*, *21*(3), 520-532. https://doi.org/10.11124/JBIES-22-00123

Pranckutė, R. (2021). Web of Science (WoS) and Scopus: The Titans of Bibliographic Information in Today's Academic World. *Publications (Basel)*, *9*(1), 12. https://doi.org/10.3390/publications9010012

Qasem, F., Ghaleb, M., Mahdi, H. S., Al Khateeb, A., & Al Fadda, H. (2023). Dialog chatbot as an interactive online tool in enhancing ESP vocabulary learning. *Saudi Journal of Language Studies*, *3*(2), 76-86. https://doi.org/10.1108/SJLS-10-2022-0072

Qiao, H., & Zhao, A. (2023). Artificial intelligence-based language learning: illuminating the impact on speaking skills and self-regulation in Chinese EFL context. *Frontiers in psychology*, *14*, 1255594-1255594. https://doi.org/10.3389/fpsyg.2023.1255594

Rahmadani, S., & Etfita, F. (2022). Foreign Language Speaking Anxiety: A Study of English Language Learning. *Indonesian Journal of Educational Research and Review*, *5*(2), 262-272. https://doi.org/https://doi.org/10.23887/ijerr.v5i2.50284

Rawat, R., Chakrawarti, R. K., Sarangi, S. K., Rajavat, A., Alamanda, M. S., Srividya, K.,

& Sankaran, K. S. (2024). *Conversational Artificial Intelligence*. John Wiley & Sons.

Rohmah, F., & Wijaya, M. K. (2025). A Case Study of Students' Speaking Anxiety in Learning English in the Classroom *SELL (Scope of English Language Teaching, Linguistics, and Literature) Journal*, *10*(1), 1-20. https://doi.org/10.31597/sl.v10i1.1207

Ruan, S., Jiang, L., Xu, Q., Liu, Z., Davis, G. M., Brunskill, E., & Landay, J. A. (2021). EnglishBot: An AI-Powered Conversational System for Second Language Learning. New York, NY, USA.

Sadoughi, M., & Hejazi, S. Y. (2024). Growth language mindset and willingness to communicate: Contributions of linguistic risk taking and learning experience. *Acta psychologica*, *248*, 104367. https://doi.org/10.1016/j.actpsy.2024.104367

Schmidt, R. W. (1990). The Role of Consciousness in Second Language
Learning. *Applied Linguistics*, *11*(2), 129-158.

Shafiee Rad, H. (2024). Revolutionizing L2 speaking proficiency, willingness to communicate, and perceptions through artificial intelligence: a case of Speeko application. *Innovation in language learning and teaching*, *18*(4), 364-379. https://doi.org/10.1080/17501229.2024.2309539

Siemon, D. (2023). Let the computer evaluate your idea: evaluation apprehension in human-computer collaboration. *Behaviour & information technology*, *42*(5), 459-477. https://doi.org/10.1080/0144929X.2021.2023638

Sim, S., Kim, Y., & Ku, K. (2025). Exploring Generative AI as a Roleplay Interlocutor in L2 Task-Based Pragmatics Learning: Comparing ChatGPT-Learner and Technology-Mediated Peer Interactions. *TESOL quarterly*, *59*, S86-S116. https://doi.org/10.1002/tesq.70010

Slavkov, N. (2023). Linguistic Risk-Taking: A New Pedagogical Approach and a Research Program. *Canadian journal of applied linguistics*, *26*(2), 32-59. https://doi.org/10.37213/cjal.2023.33038

Suban, T. S. (2021). Teaching speaking: activities to promote speaking skills in EFL classrooms. *Lectio: Journal of Language and Language Teaching*, *1*(1), 41-50.

Suryani, L., & Argawati, N. O. (2018a). RISK-TAKING AND STUDENTS SPEAKING ABILITY: DO THEY CORRELATE? *ELTIN JOURNAL: Journal of English Language Teaching in Indonesia*, *6*(1), 34-45. https://doi.org/10.22460/eltin.v6i1

Suryani, L., & Argawati, N. O. (2018b). RISK-TAKING AND STUDENTSâ€™ SPEAKING ABILITY: DO THEY CORRELATE? *ELTIN JOURNAL: Journal of English Language Teaching in Indonesia*, *6*(1), 34-45.

Tricco, A. C., Lillie, E., Zarin, W., O'Brien, K. K., Colquhoun, H., Levac, D., Moher, D., Peters, M. D. J., Horsley, T., Weeks, L., Hempel, S., Akl, E. A., Chang, C., McGowan, J., Stewart, L., Hartling, L., Aldcroft, A., Wilson, M. G., Garritty, C.,...Straus, S. E. (2018). PRISMA Extension for Scoping Reviews (PRISMA-ScR): Checklist and Explanation. *Annals of internal medicine*, *169*(7), 467-473. https://doi.org/10.7326/M18-0850

Wang, C., Zou, B., Du, Y., & Wang, Z. (2024). The impact of different conversational

generative AI chatbots on EFL learners: An analysis of willingness to communicate, foreign language speaking anxiety, and self-perceived communicative competence. *System (Linköping)*, *127*, 103533. https://doi.org/10.1016/j.system.2024.103533

Wang, M., Wang, H., & Shi, Y. (2022). The role of English as a foreign language learners' grit and foreign language anxiety in their willingness to communicate: Theoretical perspectives. *Frontiers in psychology*, *13*, 1002562. https://doi.org/10.3389/fpsyg.2022.1002562

Wang, Y., & Lin, Y. (2015). A Study on Correlation of Risk-Taking and the Oral Production of English Majors in China. *English language teaching (Toronto)*, *8*(10), 113. https://doi.org/10.5539/elt.v8n10p113

Xiao, Y., Zhang, T., & He, J. (2024). The promises and challenges of AI-based chatbots in language education through the lens of learner emotions. *Heliyon*, *10*(18), e37238. https://doi.org/10.1016/j.heliyon.2024.e37238

Xue, X., Tang, X., Liu, S., Yu, T., Chen, Z., Chen, N., & Yu, J. (2024). A scoping review on the methodological and reporting quality of scoping reviews in China. *BMC medical research methodology*, *24*(1), 45-11. https://doi.org/10.1186/s12874-024-02172-y

Yildiz, C. (2024). ChatGPT Integration in EFL Education: A Path to Enhanced Speaking Self-Efficacy. *Novitas-ROYAL (Research on Youth and Language)*, *18*(2), 167-182. https://doi.org/10.5281/zenodo.13861137

Zaroog, S. E. M. A. H. (2021). Exploring the Difficulties that English Language Teachers Encounter When Teaching the Speaking Skill in a Large Class Size. *International Journal of Novel Research in Education and Learning*, *8*(5), 40-54. www.noveltyjournals.com

Zhang, D., Wu, J. G., & Fu, Z. (2024). From shy to fly: Facilitating EFL learners' willingness to communicate with an AI chatbot and an intelligent tutoring system. *System (Linköping)*, *127*, 103501. https://doi.org/10.1016/j.system.2024.103501

Zhao, M., Noordin, N., Ahmad, N. K. B., & Liu, L. (2025). Effectiveness of Mobile-assisted Language Learning in Developing Oral English in Higher Education: A Comparative Systematic Review. *World Journal of English Language*, *15*(1). https://doi.org/10.5430/wjel.v15n1p56

Zhu, J., & Liu, W. (2020). A tale of two databases: the use of Web of Science and Scopus in academic papers. *Scientometrics*, *123*(1), 321-335. https://doi.org/10.1007/s11192-020-03387-8

Zou, B., Liviero, S., Ma, Q., Zhang, W., Du, Y., & Xing, P. (2024). Exploring EFL learners' perceived promise and limitations of using an artificial intelligence speech evaluation system for speaking practice. *System (Linköping)*, *126*, 103497. https://doi.org/10.1016/j.system.2024.103497